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BOTANICAL MAGAZINE;

OR

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THEIR NAMES, CLASS, ORDER, GENERIC AND SPECIFIC CHARACTERS,
ACCORDING TO THE SYSTEM OF LINNÆUS;
Their Places of Growth, Times of Flowering, and most approved
Methods of Culture.

CONDUCTED
By SAMUEL CURTIS, F. L. S.
THE DESCRIPTIONS
By SIR WILLIAM JACKSON HOOKER, K. H.
LL D. F. R. A. and L. S. Vice President of the Linnean Society, and
Director of the Royal Botanic Garden of Kew.

VOL. XV.
OF THE NEW SERIES;
Or Vol. LXVIII. of the whole Work.

0

" These are thy glorious works, Parent of good."

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SHOUT
SHARE
IT

TO

MRS. LAWRENCE,

OF EALING PARK, MIDDLESEX,

THE BEAUTY OF WHOSE GARDENS AND PLEASURE GROUNDS,

AND WHOSE

MOST SUCCESSFULLY CULTIVATED VEGETABLE TREASURES,

ARE ONLY EQUALLED BY

THE LIBERALITY WITH WHICH THEY ARE SHOWN TO ALL WHO ARE

INTERESTED IN

BOTANY AND HORTICULTURE,

THE PRESENT VOLUME IS DEDICATED,

WITH SENTIMENTS OF GREAT REGARD AND ESTEEM,

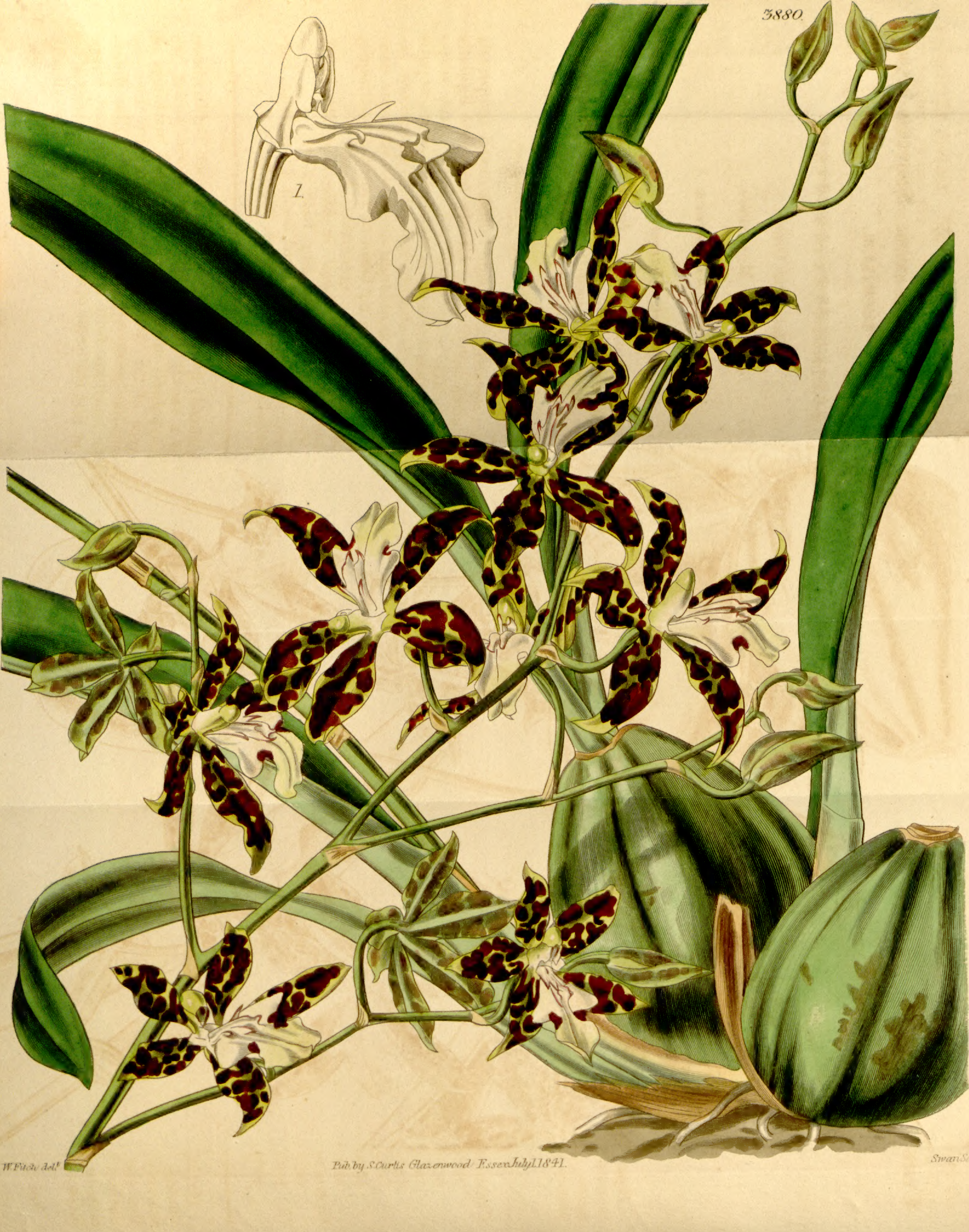
BY HER FAITHFUL AND

OBEDIENT HUMBLE SERVANT,

W. J. HOOKER.

ROYAL BOTANIC GARDENS, KEW,
August 1, 1842.

3880.



W. Fitch del.t

Pub. by S. Curtis Glazenwood Essex July 1. 1841.

Swan Sc.

CYRTOCHÍLUM MACULÁTUM. SPOTTED CYRTOCHILUM.

****

Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala lateralia patula libera. *Labellum* planum, oblongum, sæpius unguiculatum, integrum vel margine dentatum, apice angustatum, basi tuberculatum villosum aut pluries lamellatum. *Lindl. Sert. Orchid.*

Specific Character and Synonyms.

CYRTOCHILUM *maculatum;* pseudo-bulbis ovatis compressis subangulatis diphyllis basi foliosis, foliis late ligulatis acuminatis striatis apice oblique emarginatis, scapo ramoso, bracteis brevissimis squamæformibus, sepalis petalisque carnosis obovato-lanceolatis acutissimis, labello membranaceo oblongo apiculato utrinque dentato lamellis duabus ad basin et corniculo utrinque, alis columnæ falcatis integerrimis. *Lindl.*

CYRTOCHILUM maculatum. *Lindl. in Miscell. n.* 39. *April. Sert. Orchid. t.* 25. *Bot. Reg.* 1838. *t.* 44.

(β.) foliis angustioribus, labello ad basin 4-lamellato, corniculis nullis. *Hook. supra tab.* 3836.

Having already given a description, in our Table above quoted, of a variety of this species of CYRTOCHILUM, we scarcely need dwell upon the structure and markings of this the type of the species, characterized by the very distinct horn-like processes of the labellum. This difference in the labellum, with the large panicle and larger blossoms, at first led to an opinion that the two might be

specifically distinct. The specimen was derived from the same source as our var. β, namely, from the Woburn Gardens, to which the plants were sent by Mr. **Parkinson**. It is really a splendid species.

Fig. 1. Column and Lip:—*magnified.*

3881.

W. Fitch del.

Pub by S. Curtis Glazenwood Essex

GOLDFÚSSIA GLOMERÁTA. CLUSTERED GOLDFUSSIA.

****

Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—ACANTHACEÆ.)

Generic Character.

Cal. 5-partitus, subæqualis. *Corolla* infundibuliformis, limbo 5-fido, obtuso, æquali. *Stamina* inclusa, didynama, humiliora sæpe brevissima reflexa. *Antheræ* mutantes; *locelli* in connectivo uncinato glanduloso obliqui, ovati, membranacei. *Stigma* simplex, subulatum, altero latere crenatum. *Capsula* sexangularis, bivalvis, a dissepimento solubilis, loculis infernis dispermis. *Semina* discoidea, retinaculis subtensa.—INFLORESCENTIA: flores *pauci in capitulo, bibracteolati, bracteis deciduis; rarius spicati,* spica *post delapsas bracteas magis elongati.* Capitula *pedunculata, pedunculo simplici vel diviso.* Frutices, *foliis penninerviis curvinerviis, nervis omnibus apicem patentibus, nec vero attingentibus. Nees.*

Specific Character and Synonym.

GOLDFUSSIA *glomerata;* foliis ovato-subrotundis cuspidatis basi obtusis inæqualibus inæqualiter grosse dentato-crenatis multiplinerviis spicisque axillaribus oppositis solitariis globosis brevissime pedunculatis hirsutis, bracteis lanceolatis integerrimis interioribus capitulum superantibus, caule fruticuloso hirsuto. *Nees.*

GOLDFUSSIA glomerata. *Nees von Esenbeck, in Wall. Plant. As. Rar.* 3. 87. *Botanist,* 155.

This ornamental plant flowered in the stove of the Botanic Garden, Edinburgh, in autumn, 1840. It is a native of the mountains of Sylhet.

Descr. *Shrub* erect. Specimen described two feet high, branched; *branches* spreading, round, swollen at the joints; *bark* pale brown, slightly warted; *twigs* zigzag, green, glandulose, pubescent; *hairs* unequal, spreading, or subreflexed. *Leaves* petioled, spreading, sharply and unequally serrated, dark green above, pale below, hairy on both sides, the hairs on the upper side springing from tubercles; wide, those which are opposite very unequal to each other; the larger (three and a half to four and a half inches long, one and three quarters to two and a half inches broad) ovate, acuminate, very unequal at the base, *rib* slightly excentric, *veins* oblique with small transverse reticulations, *veins* prominent on the lower surface; the smaller leaves similar in structure and on the surface, but many times smaller, transversely subrotundo-kidney-shaped; *petioles* short, stout, compressed dorsally, covered with pubescence similar to that on the twigs, which they encircle at their origin. *Inflorescence* tufted, axillary, bracteated: *bracts* lanceolate, serrated, erect. *Calyx* 5-partite, segments resembling the bracts, and like them covered with harsh pubescence. *Corolla* (nearly two inches long, an inch and a quarter across when expanded) funnel-shaped, finely glanduloso-pubescent on the outside, wrinkled but glabrous within, and on the lower side in the throat having two rows of short, ragged tubercles; *tube* curved, subcylindrical and colourless in its lower, dilated and lilac in its upper part, ventricose below, somewhat flattened above; *limb* five-lobed, the lobes emarginate, spreading, the lowest the longest. *Stamens* didynamous, included, laid along the lower side of the corolla. *Style* laid between the two rows of tubercles on the corolla, rather longer than the stamens, bifid, one of the segments very short. *Graham.*

Fig. 1. Calyx and Bractea. 2. Corolla laid open. 3. Pistil:—*magnified.*

3882.

W Fitch del.t Pub by S. Curtis Glazenwood Essex July 1 1841 Swan Sc.

CALLISTÁCHYS LINEÁRIS. RED-FLOWERED CALLISTACHYS.

****

Class and Order.

DECANDRIA MONOGYNIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Calyx bilabiatus, labio sup. bifido, infer. tripartito. *Cor.* vexillo erecto et petalis carinæ demissis inter se æqualibus longiore. *Stam.* disco inserta ! *Stylus* incurvus. *Stigma* simplex acutum. *Legumen* stipitatum lignosum apice dehiscens, junius multiloculare septulis transversis demum evanidis, polyspermum.—Frutices *Australasici.* Folia *verticillata aut sparsa, integra, subtus sericea.* Racemi *terminales, conferti.* Calyces *et* fructus *villosissimi.* Flores *lutei. De Cand.*

Specific Character and Synonyms.

CALLISTACHYS *linearis;* foliis elongatis linearibus mucronatis reticulatis margine revolutis, racemis laxiusculis terminalibus. *Benth.*

CALLISTACHYS linearis. *Benth. in Hugel, Enum. Plant. Nov. Holl. p. 27.*

CALLISTACHYS sordida. *Graham MSS.*

This species is interesting as presenting an unusual colour in the Genus, but its blossoms greatly disappointed the expectations raised by the name, " *Crimson Callistachys,*" under which it had been received at the garden of the Caledonian Horticultural Society. It flowered there in October, 1840, and has no pretensions to beauty. It was received both at the establishment mentioned, and at the Botanic Garden, Edinburgh, from Mr. Low of Clapton in 1839, 1839, and was raised by him from seeds received from Mr. DRUMMOND at Swan River * settlement, Australia.

DESCR. *Shrub* erect; *branches* long and slender, glabrous, excepting towards the extremities, where there are a few appressed hairs. *Leaves* (four to six inches long) scattered, ovato-linear, the lowest by much the broadest, entire and revolute in the sides, glabrous above, with appressed somewhat silky hairs below, having a strong middle rib channelled in front, and numerous oblique veins. *Petioles* short, round. *Stipules* subulate, erect, persisting. *Racemes* solitary, terminal: *rachis* slightly hairy, somewhat angled, and like the branches thickly covered with small, dark green spots. *Flowers* numerous, pedicellate; *pedicels* solitary, scattered, short, spreading, silky, rising from the axil of an obovato-acuminate, caducous bract. *Calyx* nearly thrice as long as the pedicel, silky, bilabiate; *lips* nearly equal in length, the upper having two blunt, short, slightly divaricated teeth, the lower cut to its base, with three ovato-acuminate, inflected segments. *Corolla* about one-third longer than the calyx, of a dirty purple colour; *vexillum* subrotund, auricled at the base, without any callosity; *claw* greenish-yellow; *alæ* rather shorter than the vexillum, and of darker colour, falcato-oblong, with an incurved auricle as long as the claw on the upper edge, and a short, straight tooth, farther from the claw on the lower; *keel* equal in length to the *alæ*, blunt, its petals cohering only in the middle, its claws distinct. *Stamens* included, somewhat unequal, nearly as long as the keel, free, glabrous; *filaments* colourless; *anthers* yellow; *pollen* pale. *Pistil* as long as the stamens; *stigma* terminal, minute; *style* subulate, glabrous; *germen* silky, stipitate, surrounded by a callous ring, into which the calyx and corolla are inserted, unilocular in every stage examined. *Graham.*

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* It was first found by Mr. FRASER in the Swan River colony, and subsequently by Mr. COLLIE, at Freemantle.—ED.

Fig. 1. Flower. 2. Calyx with Stamens and Pistil. 3. Pistil: *magnified.*

3883.

W. Fitch del.^t

Pub by S. Curtis Glazenwood Essex July 1 1841.

STYLIDIUM CILIATUM. CILIATED-LEAVED STYLIDIUM.

****

Class and Order.

GYNANDRIA DIANDRIA.

(Nat. Ord.—STYLIDIEÆ.)

Generic Character.

Calycis limbus bilabiatus. *Cor.* irregularis 5-fida, lacinia quinta (labello) dissimili minore sæpius deflexa, reliquis patentibus interdum geminatim cohærentibus. *Columna* genitalium reclinata duplici flexura. *Antheræ* bilobæ lobis divaricatissimis. *Stigma* obtusum indivisum. *Capsula* bilocularis septo superne interdum incompleto.—Herbæ *aut suffruticuli.* Folia *aut radicalia rosulata aut secus caulem sparsa, interdum basi attenuata.* Pili *sæpius apice glandulosi. D C.*

Specific Character and Synonyms.

STYLIDIUM *ciliatum ;* foliis linearibus ciliatis apice piliferis, scapo floribusque pilis luteis glandulosis vestitis, rachi villosissimo, panicula pyramidata. *Lindl.*

STYLIDIUM ciliatum. *Lindl. in Swan River Bot. p. xxviii.*

STYLIDIUM setigerum. *De Cand. Prodr. v. 7. App. p. 782.*

In Professor LINDLEY's valuable " Sketch of the Botany of the Swan River Colony," he states that " of the singular Order STYLIDIEÆ (chiefly composed of the present Genus,) the Swan River colony produces a greater proportion than any other settlement, he himself possessing not less than forty of its well-marked species; while Baron HUGEL describes others with which he is unacquainted; and by far the larger part of these he considers well worthy of cultivation." Our own Herbarium, so rich in this family, will

amply confirm this statement of Dr. LINDLEY. One of the species he describes is now in cultivation by Mr. LOWE of Clapton, and to him we are indebted for the beautiful specimen here figured. It is extremely different, especially in the colour of its flowers, from any species yet introduced to our greenhouses.

DESCR. *Root* fibrous, but we presume, perennial. *Leaves* almost all springing from the top of the root, rosulate, very densely imbricated, the lower ones spreading on the ground, the inner ones nearly erect, all of them linear, compressed, ciliated, and tipped with a hair-like point. *Scape* with a few small, scattered, nearly appressed leaves, everywhere, as well as the pedicels, calyx, and outside of the corolla, clothed with long, spreading hairs, tipped with a brown, viscid gland. *Panicle* many-flowered. *Ovary* oblong. *Calyx-segments* of the same shape. *Corolla* and *column* yellow, exhibiting the usual structure of the Genus.

Fig. 1. Side view, and fig. 2, front view of a Flower: *magnified.*

3884

W. Fitch del. Pub by S. Curtis Glazenwood Essex July 1 1841 Swan Sc.

(3884)

PENTSTÉMON CAMPANULÁTUS. BELL-FLOWERED PENTSTEMON.

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—SCROPHULARINEÆ.)

Generic Character.

Cal. pentaphyllus aut 5-partitus, bractea solitaria distante. *Cor.* ventricosa, bilabiata. *Stamina* didynama, rudimento quinti filiformi sæpius barbato. *Antheræ* sejunctæ sæpius glabræ. *Caps.* ovata, bilocularis, bivalvis, polysperma. *Semina* angulata. *Lindl.*

Specific Character and Synonyms.

PENTSTEMON *campanulatus;* glaber, caule herbaceo, foliis e lata basi lanceolatis acuminatis serratis sessilibus summis ovatis, pedunculis bracteatis bifloris racemosis seu fere paniculatis, floribus subsecundis, calycibus serratis, corollæ fauce hirsuta, filamento sterili apice clavato hirsuto longitudine staminum.

PENTSTEMON campanulatus. *Willd. Sp. Pl. v.* 3. *p.* 228.

CHELONE campanulata. *Cav. Ic. v.* 1. *t.* 29. *Andr. Bot. Rep. t.* 49. *Spreng. Syst. Veget. v.* 2. *p.* 813.

(β.) *angustifolia;* foliis angustioribus.

CHELONE angustifolia. *Humb. et Kunth, Nov. Gen. Am. t.* 173.

Sent from Mexico to the rich collection at Woburn, whence the specimen here figured was communicated by Mr. FORBES in the autumn of 1839. The plant is not of recent introduction to our gardens, for it was figured by ANDREWS in an early part of his Repository, though that plate represents a very narrow-leaved variety. It is with that variety that Dr. LINDLEY'S PENTSTEMON *pulchellus* (Bot.

Reg. t. 1138) has the greatest affinity. It is a very ornamental species, but, probably, rather tender. At Woburn it is, we believe, cultivated in the greenhouse.

Descr. *Root* perennial. *Stem* herbaceous, rounded, glabrous. *Leaves* opposite, sessile, lanceolate, broad at the base, much acuminated and strongly serrated from the base to the very apex; gradually, towards the upper part of the stem, the leaves become smaller, and, in proportion, broader, till at length they constitute ovate *bracteas*. From the axils of these leaves the bracteated *peduncles* arise, each generally with two branches, and two rather large, handsome *flowers*, which are subsecund. Thus the inflorescence may be called a compound raceme, or a narrow panicle. *Calyx* of five serrated segments. *Corolla* rose-purple, pale beneath, narrow at the base, the rest of the tube campanulate, inflated below, the *limb* spreading, of five roundish lobes: the faux hairy. *Sterile filament* equal in length with the fertile ones, clubbed at the apex and hairy; all of them included.

Fig. 1. Calyx and Pistil. 2. Stamens and sterile Filament: *magnified.*

3885.

W. Fitch delt   Pub by S. Curtis Glazenwood Essex July 1 1841   Swan Sc

EPIDÉNDRUM GRAHÁMI. DR. GRAHAM'S EPIDENDRUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala patentia subæqualia. *Petala* sepalis æqualia v. angustiora rarius latiora, patentia v. reflexa. *Labellum* cum marginibus columnæ omnino vel parte connatum; limbo integro v. diviso; disco sæpius calloso, costato v. tuberculato; nunc in calcar productum ovario accretum et cuniculum formans. *Columna* elongata; clinandrio marginato sæpe fimbriato. *Anthera* carnosa, 2—4-locularis. *Pollinia* 4, caudiculis totidem replicatis annexa.—Herbæ *(Americanæ) epiphytæ, caule nunc apice v. basi pseudo-bulboso, nunc elongato apice folioso.* Folia *carnosa, rarissime venis elevatis striata.* Flores *spicati, racemosi, corymbosi vel paniculati, terminales v. laterales. Lindl.*

Specific Name and Character.

EPIDENDRUM (ENCYCLIUM) *Grahami;* pseudo-bulbis ovatis diphyllis, scapo terminali, racemo plurifloro, perianthio patente, sepalis lato-linearibus, petalis spathulatis, labello trilobo basi longe bilamellato, laciniis lateralibus ovatis acutis, intermedia rotundata crispata, columna apice utrinque dente obtuso, anthera profunde sulcata.

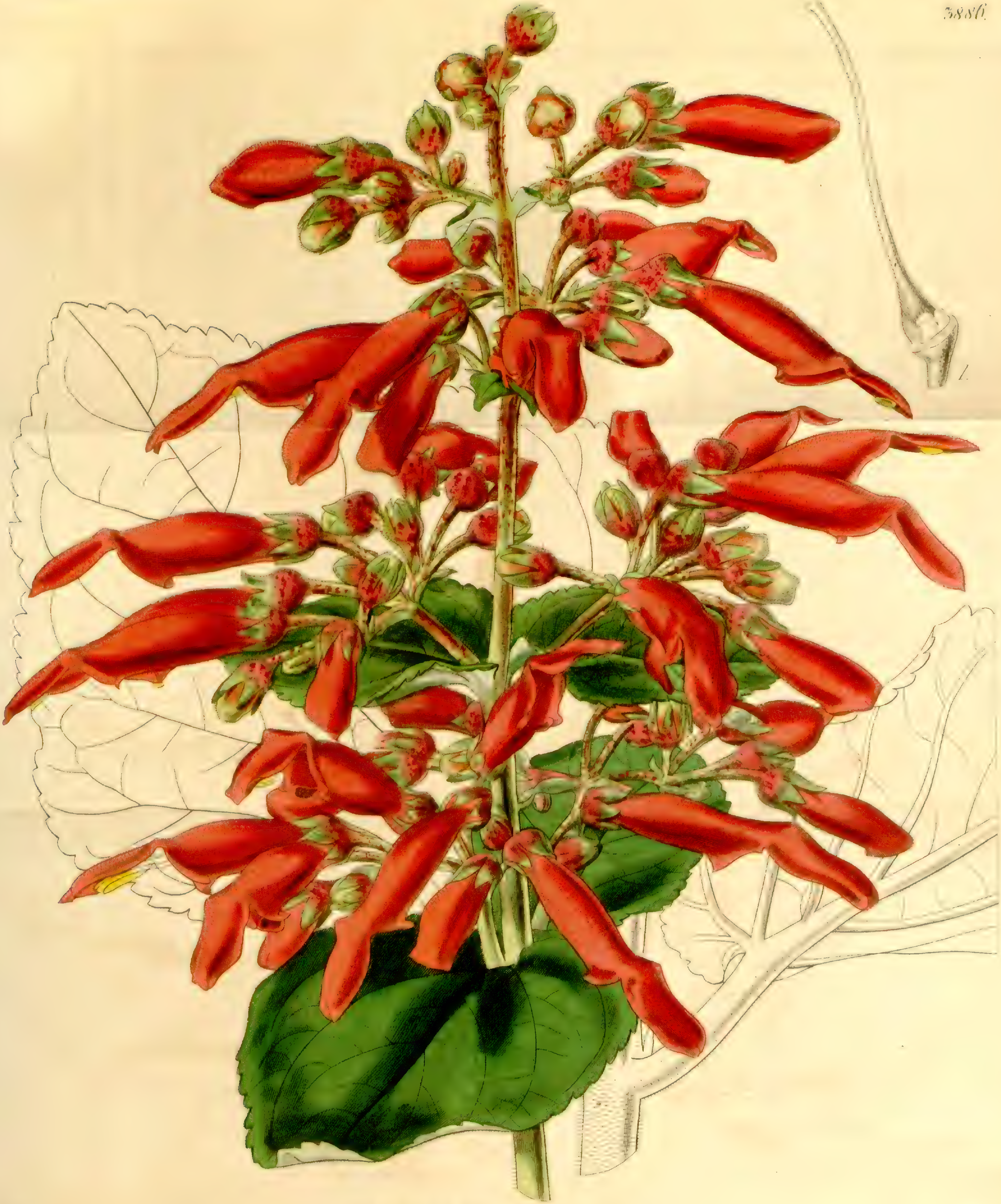
For this very pretty species of EPIDENDRUM, belonging to the group ENCYCLIUM, I am indebted to Dr. GRAHAM, who sent me the specimen here figured in the autumn of 1840. I cannot find any described species with which it corresponds.

responds. It was received at the Edinburgh Botanic Garden from Mexico, and well deserves a place in every collection of Orchideous Epiphytes.

Descr. The *pseudo-bulbs* are ovate, nearly smooth, pale green, about the size of a pigeon's egg, bearing two, broadly-linear or almost ligulate, somewhat obtuse and coriaceous *leaves*. *Scape* a foot and a half high, about as thick as a crow's quill, bracteated, bearing from eight to ten rather large *flowers* in a lax raceme. *Perianth* much spreading, yellowish-green, tinged with brown ; *sepals* nearly equal, broadly-linear, rather acute. *Petals* equal to them in length, spathulate. *Lip* deeply three-lobed, with two long white, prominent *lamellæ* at the base, the side lobes yellow, ovate, acute, vertical, or almost convolute, so as to embrace the column, the middle one very large, nearly orbicular, waved at the margin, white, beautifully streaked with red. *Column* semiterete, having, on each side above, an obtuse tooth. *Anther-case* with a deep furrow in the middle.

Fig. 1. Column and Anther. 2. Labellum :—*magnified.*

3886



Fitch del.

Pub. by S. Curtis Glazenwood Essex Augt. 1. 1841.

GESNÉRIA BULBÓSA. BULBOUS-ROOTED GESNERIA.

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—GESNERIACEÆ.)

Generic Character.

Calyx ovarii basi adnatus, limbo 5-partito libero. *Corolla* tubulosa; limbo 5-lobo, lobis nunc in labia duo dispositis, nunc subæqualibus. *Stamina* 4 didynama, cum quinti rudimento. *Antheræ* juniores cohærentes. *Stylus* filiformis, stigmate capitato aut bilobo. *Glandulæ* perigynæ 2 ad 5. *Capsula* coriacea, bivalvis, valvis convexis, placentis 2 parietalibus polyspermis. *Semina* scobiformia. —Herbæ *perennes, radice tuberosa, rarius* frutices. Caulis *simplex aut opposite ramosus.* Folia *opposita aut verticillatà, dentata.* Pedunculi *simplices uniflori, aut ramosi multiflori, axillares aut in thyrsum racemumve terminalem dispositi.*

Specific Character and Synonyms.

GESNERIA *bulbosa;* pubescenti-villosa, caule erecto tereti, foliis oppositis breviter petiolatis ovato-ellipticis basi cordatis serrato-crenatis, cymis multifloris ex axillis foliorum supremorum in thyrsum terminalem amplum dispositis corolla vix brevioribus, calycis lobis latis brevibus, corollæ cylindraceæ basi 5-gibbosæ labio superiore longe productiore.

GESNERIA bulbosa. *Gawl. in Bot. Reg. t.* 343 *(not Hook. in Bot. Mag. t.* 3041.*) De Cand. Prodr. v.* 7. *p.* 529.

We figured at t. 3041 of the Botanical Magazine, under the name of GESNERIA *bulbosa,* a species closely resembling it in most of the important characters, but which has

since been distinguished under the name of G. *Suttoni*, chiefly on account of its one-flowered peduncles. We now represent the true G. *bulbosa*, with many-flowered cymes, from a specimen received from John Allcard, Esq., who imported it from Brazil, and in whose stove it flowered magnificently in October, 1840.

Descr. *Tuber* large, rounded. *Stem* erect, herbaceous, simple, about two feet high, downy. *Leaves* opposite, on short petioles, large, broadly ovato-cordate, crenately toothed, thick and downy on both sides. *Panicle* terminal, ample, crowded, consisting of a considerable number of opposite cymes, each cyme bearing on a short, common *peduncle*, six to ten or more splendidly-coloured, scarlet *flowers*. *Bracteas* small, nearly cordate, entire. *Calyx* five-cleft, the segments broad and rather short, and covered with a red, glandular tomentum. *Corolla* three inches long, rich scarlet, tubular, enlarged upward, contracted just above the base, the very base inflated with five lobes or protuberances, the whole corolla covered with a fine down. *Stamens* inserted in the base of the tube; *filaments* arched upwards and meeting; *anthers* slightly cohering in the form of a cross. *Germen* nearly half free; the lower half imbedded in the tube of the calyx, downy and red. *Glands* two, yellow. *Style* downy. *Stigma* broad, obtuse, very slightly two-lobed.

W Fitch del.

Pub by S. Curtis Glazenwood Essex Augt 1 1841

(3887)

TULĪPA TRĪCOLOR. THREE-COLOURED TULIP.

* * * * * * * * * * * * * * * * * * * *

Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—LILIACEÆ.)

Generic Character.

Perianthium inferum, campanulatum, hexaphyllum. *Stylus* nullus. *Semina* plana.

Specific Character and Synonyms.

TULIPA *tricolor;* bulbo solitario, caule unifloro subdiphyllo, foliis oblongo-linearibus, petalis acutis, interioribus latioribus basi ciliatis, filamentis supra basin barbatis alternis longioribus pistillo parum brevioribus, capsula triquetra, mucronata. *Ledebour.*

TULIPA tricolor. *Ledeb. Ic. Pl. Fl. Ross. Alt. Illust. t.* 135. *Ibid. Fl. Altaica,* 2. 33. *Graham, in Edin. New Phil. Journ. January,* 1836.

TULIPA patens. *Agardh, in Schult. Syst. Veget.* 7. *part.* 1. *p.* 384.

This species has, during several years, flowered in April in the interesting collection of bulbous-rooted plants at Carlowrie, the seat of DAVID FALCONER, Esq., who has been long remarkable for the success with which he cultivates, and the liberality with which he distributes, many hardy plants of great beauty and interest.

LEDEBOUR notices the near relationship of the present plant to TULIPA *biflora,* and, I confess that, had it not been for his authority, the native individuals which I have received from himself and from Dr. FISCHER, with the cultivated specimens of Mr. FALCONER, and the native ones of

T.

T. *biflora* which I owe to Dr. Fischer, and those grown in the Botanic Garden here, might have left me in doubt whether they should be considered more than varieties. Among my own specimens, the distinction seems to rest chiefly on all the parts of the flower in Tulipa *biflora* being smaller, the petals less pointed, and the outer more nearly equal to the inner in breadth, and rather longer than they. I have had no means of judging as to the ripe fruit; the germen seems alike in the two. Tulipa *tricolor* is a native of dry, stony places on the sides of the Altai mountains. T. *biflora* is from Astrachan.

Descr. *Bulb* ovate, about the size of a filbert, covered with a brown skin. *Stalk* glabrous, erect, green, longer than the leaves. *Leaves* (five inches and a half long, three (or more) lines broad) two in the specimen described and in all the native specimens which I have seen, the upper one the narrowest, glabrous, glaucous, and slightly channelled in front, green and somewhat keeled behind, subacute and callous at the apex. *Flowers* suberect. *Petals* lanceolate, acute; *outer* petals narrower and rather shorter, greenish on the outside, within white, and yellow at the base, everywhere glabrous, striated; *inner* petals (an inch and a quarter long, five lines broad) white, yellow at the base, ciliated at the claws, everywhere else glabrous, striated with faint, diverging lines, the middle rib being green. *Stamens* alternately longer, all about half as long as the petals, yellow; *filament* subulate, flattened, broadest above the base, and there hairy on the outside, narrower and nearly colourless below; *anthers* oblong, erect, nearly equal in length to the shorter filaments; *pollen* yellow, *granules* oblong. *Pistil* scarcely exceeding in length the shorter filaments, three-sided, pyramidal; *stigma* of three obscure lobes. *Ovules* numerous, imbricated. *Graham.*

Fig. 1. Sepal. 2. Stamens. 3. Pistil: *magnified.*

3888.

J.M.Nab del.

Pub by S. Curtis Glazenwood Essex Augt 1 1841.

Swan Sc.

BIGNÓNIA SPECIÓSA. SHOWY-FLOWERED BIGNONIA.

****

Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—BIGNONIACEÆ.)

Generic Character.

Cal. campanulatus, integerrimus, repandus vel subdentatus. *Cor.* campanulata, limbo bilabiato, 5-lobo. *Filamentum* 5 sterile. *Stigma* bilamellatum. *Capsula* siliquæformis, bilocularis, dissepimento valvis parallelo. *Semina* transversa, biseriata, membranaceo-alata.

Specific Character.

BIGNONIA *speciosa;* foliis binatis cirrhiferis foliolis obovato-oblongis lucidis, pedunculis terminalibus bifloris, staminibus pistillisque inclusis.

This is a very ornamental species, when trained along the roof of a stove. A plant was received at the garden of the Caledonian Horticultural Society from Woburn Abbey in November, 1839, and flowered in April and May, 1841. It had been imported under the name here adopted from Mr. TWEEDIE at Buenos Ayres, having been found by him in Uraguay.

DESCR. *Stem* long, straggling, woody, climbing. *Leaves* petiolate; *petioles* (four lines and a half long) opposite, spreading wide, bearing at the apex two leaflets, and having a long, simple cirrhus between these; *leaflets* (about three inches long, an inch and a half broad) undulate, elliptical, glabrous, shining, bright green, reticulate, on two slightly unequal, partial petioles, less than half the length of the general petioles, *midrib* prominent behind; *petiole,*

cirrhus, and one of the *leaflets* occasionally wanting, when the other leaflet is attached to the branch by its partial petiole only ; leaves when very young, as well as the young branches, the general and partial petioles, covered with short, soft pubescence. *Stipules* several, lanceolate, slightly coloured, scattered upon the common petiole, caducous. ***Flowers*** large and handsome, geminate, terminal, erect, pedicelled, the one expanding rather before the other. ***Peduncles*** (one inch long) erect, parallel. *Calyx* campanulate, green, glabrous, with six (five ?) shallow sinuosities, alternating with an equal number of long, subulate or filamentous teeth. *Corolla* (nearly three inches long, and two across when fully expanded) covered within and without with short pubescence; *tube* compressed dorsally, having three longitudinal plaits below, yellowish on the outside, of brighter yellow within, and streaked with lilac ; *limb* bilabiate, two-thirds lobed, lilac, paler on the outside, and having darker veins within, *lobes* blunt, undulate, the upper reflected, the lower longer reflected towards the apex, the two outer of the three repand. *Stamens* colourless and glabrous, the outer reaching to about the middle of the tube, the two others more than half as long, forming two arches by the approximation of the anthers, the lobes of which are divaricated; *pollen* pale yellow, abortive stamen more than a third of the length of the shortest pair, subulate and waved. ***Pistil*** rather longer than the longest stamens ; *stigma* bilamellate, the lamellæ subequal, crenulate, and slowly excitable by being touched ; *germen* pale yellow, slightly furrowed on two sides, minutely warted, every other part of the pistil glabrous, bilocular ; dissepiment inserted opposite to the furrows. *Ovules* numerous. *Graham.*

Fig. 1. Stamens. 2. Calyx and Pistil. 3. Ovary :—*magnified.*

W Fitch del^t

Pub by S. Curtis Glazenwood Essex Aug 1 1841.

Swan

PERNÉTTIA ANGUSTIFÓLIA. NARROW-LEAVED PERNETTIA.

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Class and Order.

DECANDRIA MONOGYNIA.

(Nat. Ord.—ERICINEÆ.)

Generic Character.

Calyx 5-partitus. *Corolla* hypogyna, ovata, limbo 5-fido. *Stamina* 10, imæ corollæ inserta, inclusa. *Filamenta* subulata. *Antheræ* dorso muticæ, apice bifidæ, lobis biaristatis. *Squamulæ* hypogynæ 10, basi connatæ. *Ovarium* 5-loculare, loculis multiovulatis. *Stylus* simplex. *Stigma* obtusum. *Bacca* globosa, 5-locularis, placentis angulo centrali adnatis. *Semina* plurima, testa crassa.—Frutices *parvi sempervirentes.* Folia *alterna serrata.* Flores *nutantes, precipuè albi.* *Endl.*

Specific Character and Synonyms.

PERNETTIA *angustifolia;* erecta ramosa, ramulis minutissime puberulis angulatis, foliis lineari-lanceolatis, mucronato-acuminatis remote serratis glabris 1-nerviis, pedicellis axillaribus solitariis unifloris folio dimidio brevioribus glabriusculis nudis, basi ima tantum bracteolatis. *Lindley.*

PERNETTIA angustifolia. *Lindl. in Bot. Reg. Ann.* 1840. *t.* 63.

We received this plant at the Botanic Garden Edinburgh, from Mr. CAMERON of the Botanic Garden at Birmingham, who has a greater number of the species of this Genus than would be found in any other collection, were it not for the liberality of the establishment which he superintends. It has repeatedly flowered freely with us without any parti-

cular treatment, and is believed to be a native of Valdivia, introduced, probably, by Mr. CUMING.

DESCR. *Shrub* erect, branched, glabrous; *twigs* red. *Leaves* scattered, narrow-lanceolate, glabrous, spreading, and arched backwards, dark green above, paler below, persisting, coriaceous, distantly tooth-serrated along the whole of the edge which is callous, midrib conspicuous behind on account of its subdiaphanous appearance there, but obscure in front, lateral veins very obscure. *Pedicels* axillary, solitary, single-flowered, collected and often crowded towards the extremities of the shoots, about half as long as the lower leaves, longer than the diminished upper leaves, white, glabrous, cased at their origin by several adpressed, imbricated, oval scales. *Flowers* cernuous. *Calyx* persisting, white, glabrous, 5-partite, tumid at the base, segments of the *limb* ovate, adpressed. *Corolla* white, suborbicular, about three times as long as the calyx, its *limb* consisting of five, ovate, reflected teeth. *Stamens* half as long as the corolla, from the base of which they arise, alternately longer, the shortest about as long as the calyx; *filaments* white, dilated into a circular base; *anthers* brown, opening by two pores, each of which has two short, erect, awns, from its outer edge. *Hypogynous gland* green, ten-lobed. *Pistil* scarcely longer than the stamens; *germen* green, subglobular, obscurely lobed, five-locular; *style* stout, erect; *stigma* blunt. *Graham.*

Fig. 1. Flower. 2. Calyx and Germen. 3. Stamen:—*magnified.*

3890.

W. Fitch del.ᵗ

Pub by S Curtis Glazenwood Essex Aug.ᵗ 1 1841

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(3890)

ONCÍDIUM MONÓCERAS. ONE-HORNED ONCIDIUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Labellum explanatum, lobatum, basi tuberculatum. *Petala* patentia (2 antica nunc connata). *Columna* alata. *Massæ pollinis* 2, postice bilobæ; medio affixæ processu communi stigmatis. *Br.*

Specific Name and Character.

ONCIDIUM *monoceras;* pseudo-bulbo oblongo compresso sulcato uni-bifolio, foliis oblongo-lanceolatis coriaceis nitidis, floribus paniculatis, sepalis (viridibus) lanceolatis inferioribus coadunatis, petalis obovato-spathulatis, labello trilobo disco cornu elongato sursum curvato, columna gracili elongata aptera.

This is one of the many species of small-flowered ONCIDIA which, at first sight, seem to have little that is beautiful or singular to recommend them; but which, when carefully examined, will be found to possess a very remarkable structure in the flowers. The present exhibits on the upper side of the disk of the labellum a solitary horn, curved upwards, and almost as long as the lip itself. It was sent by Mr. HUNT from Rio Janeiro to His Grace the Duke of BEDFORD, in September, 1839, and it flowered in great perfection in January of the following year, when the specimen here figured was sent to us by Mr. FORBES. This is not, indeed, the only specimen we are acquainted with furnished with this horn-like process from the lip: we possess the drawing of another species, which flowered at Glasgow in the autumn of last year, sent from the Organ Mountains by Mr. GARDNER, which has a horn very similar to this: but it is in other respects very different, especially in the presence of two blunt, horn-shaped processes on the column.

DESCR. *Pseudo-bulb* three inches long, oblong, compressed and furrowed. *Leaf* one, or, probably, more frequently, two, five to six inches long, oblong, lanceolate, coriaceous, glossy. *Peduncle* from the base of the pseudo-bulb, soon branching into a panicle. *Flowers* small. *Sepals* lanceolate, green, the two lateral, or lower ones, combined almost to the apex: the upper one erect, leaning, as it were, against the column. *Petals* narrow obovate, waved, yellow blotched with rust colour. *Lip* three-lobed, yellow, blotched with red in the disk; the lateral *lobes* small, narrow, intermediate one narrow at the base, but gradually widening so as to become transversely rhomboidal, notched at the apex: at the base of the disk is a sharp, transverse, elevated ridge, and within a long, subulate, curved horn, pointing upwards. *Column* green, slender, elongated, quite destitute of wing, acute at the point. *Anther-case* small, lodged in front a little below the point.

Fig. 1. Posterior view of a Flower. 2. Anterior view of ditto: *magnified.*

W Fitch del.t

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Swan Sc.

PHYSIÁNTHUS AURÍCOMUS. GOLDEN-HAIRED PHYSIANTHUS.

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Class and Order.

PENTANDRIA DIGYNIA.

(Nat. Ord.—ASCLEPIADEÆ.)

Generic Character.

Cor. campanulata, tubo inflato-ventricoso, limbo 5-fido connivente. *Columna fructificationis* inclusa pentaphylla, foliolis tubo stamineo insertis, deinde corollæ adnatis, sursum liberis cucullatis. *Antheræ* membrana terminatæ. *Pollinis massæ* decem, cereaceæ, compresso-clavatæ, in cruribus retinaculi deflexis pendulæ. *Stigma* biapiculatum. *Semina* comosa. *Martius.*

Specific Name and Character.

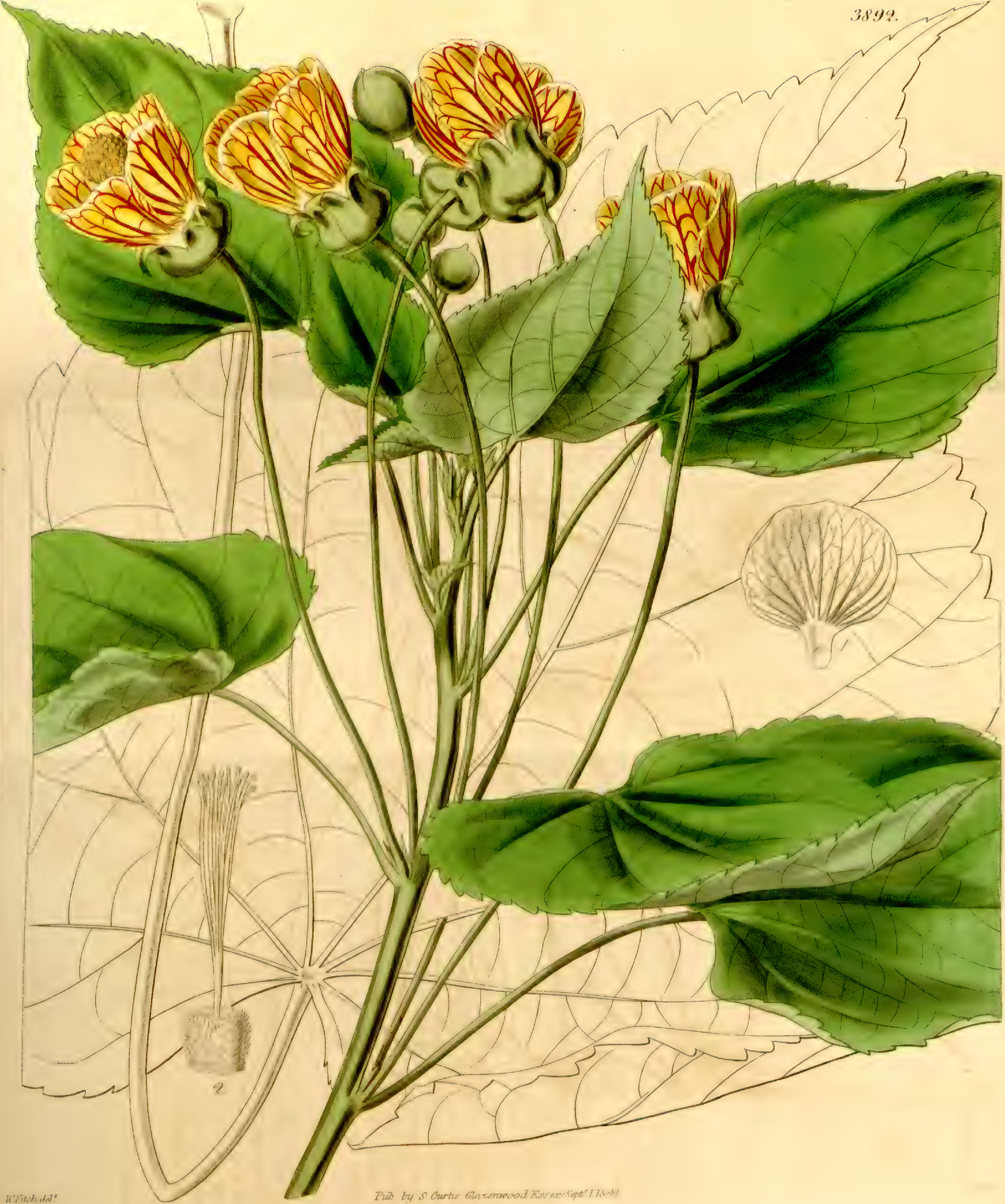
PHYSIANTHUS *auricomus;* caule volubili piloso, foliis obovatis acuminatis basi cordatis, floribus umbellatis pedunculo petiolis multo longiore, stigmate inappendiculato. *Graham.*

I first saw this handsome climber extending across the rafters from end to end of a stove in the garden at Hales, near Liverpool, the seat of —— BLACKBURN, Esq., in October, 1837. It was covered with blossom, each flower remaining long in perfection. I could not ascertain from whence it had been imported, but it is certainly identical with GARDNER's wild specimens collected in the province of Ceará, Brazil. A cutting from the Hales plant flowered in the Botanic Garden, Edinburgh, in October, 1840; but it will never be seen in the same perfection as at Hales, unless, as there, it be planted in a border under glass, not kept in a pot.

DESCR. *Stem* woody, with milky juice, twining, densely covered with spreading, harsh, yellow hairs. *Leaves* (three to four and a half inches long, two to two and three quarters broad) petioled, obovate, acuminate, cordate at the greatly narrowed base, hairy on both sides, the hairs on the midrib being longer than the rest and like those on the stem, entire, undulate, rather paler below than above ; *petiole* about one-fifth part of the length of the leaf, channelled above, spreading, very hairy on the back. *Peduncles* lateral in reference to the petioles, half as long as, or equalling the length of the leaf, hairy, umbellate ; *flowers* expanding in succession ; *bracts* involucrate, ovato-lanceolate, acuminate, deciduous ; *pedicels* about one-third of the length of the peduncle, less hairy. *Calyx* 5-partite ; *segments* ovato-lanceolate, acuminate, slightly hairy, connivent, veined. *Corolla* (an inch and a quarter long, an inch and a half across) perfumed, white, somewhat fleshy, funnel-shaped, having a very few erect hairs near the throat, everywhere else glabrous ; *tube* longer than the calyx, swollen below, and having five gibbosities alternating with the segments of the calyx, scarcely angled above, faintly marked with greenish veins on the outside ; *limb* five-parted, segments ovate, spreading and reflected. *Crown* of five linear-oblong, green, flat, fleshy segments, erect in the tube of the corolla, to which they are adpressed, in their lower half adherent by their backs, and alternate with its gibbosities, shorter than the tube. *Stamens* monadelphous, opposite to the lobes of the crown, and subsessile upon a fleshy mass on the inside of the base of each of these, each terminated by an ovate, thin and colourless, membranous appendage, which is spread upon the side of the stigma alternately with small, dark purple, rhomboid glands, which are split vertically on the outer side, and have suspended from them, by short, straight arms, two flattened, elliptical, yellow *pollen-masses*, which are lodged in cavities on the inside of the base of the membranous appendages. Each stamen has two yellow, cartilaginous *spurs*, involute in the edges, and projecting downwards by the side of the short, stout, herbaceous filament, into cavities alternating with the fleshy masses on the inside of the segments of the crown, from which the stamens arise, so that in each cavity there is a *spur* from two adjoining stamens ; and as the glands are immediately above these spurs, the pollen-masses from each belong to two stamens. *Stigma* large, white, angled upon the sides from the indentation of the stamens, rounded on the top, without any appendages. *Styles* two, short, erect, parallel, yellow. *Ovules* very numerous, slender, attached to large receptacles from the inside of the germen. *Graham.*

Fig. 1. Crown. 2. The same laid open. 3. Stamen. 4. Pollen-masses. 5. Pistils: *magnified.*

3892.



W. Fitch, del.t

Pub by S. Curtis Glazenwood Essex Sept.r 1 1841

SIDA (ABUTILON) BEDFORDIANA. DUKE OF BEDFORD'S SIDA.

* * *

Class and Order.

MONADELPHIA POLYANDRIA.

(Nat. Ord.—MALVACEÆ.)

Generic Character.

Calyx nudus, 5-fidus, sæpe angulatus. *Stylus* apice multifidus. *Carpella* capsularia 5—30 circa axim verticillata, plus minusve inter se coalita, 1-locularia, mono- aut oligosperma, apice mutica aut aristata. *D C.*

Specific Name and Character.

SIDA (ABUTILON) *Bedfordiana;* subarborea, ramis teretibus glabris, foliis profunde cordatis acuminatis serratis glabris longe petiolatis 7-nerviis, pedunculis axillaribus solitariis vel 2 erectis longitudine foliorum infra calycem articulatis, calyce pulverulento-pubescente breviurceolato basi truncato intruso fere ad medium quinquefido laciniis acuminatis reflexis, petalis concavis erecto-patentibus imbricatis brevi-unguiculatis latissime suborbiculatis pictis, ovariis tomentosis, stylo multifido, fructibus pubescentibus.

A small *tree*, about fifteen feet high, discovered in the Organ Mountains* of Brazil by Mr. GARDNER, in May, 1837, and thence sent to his friends and patrons in this country, among others to the most distinguished and most munificent of those patrons, His Grace the late Duke of BEDFORD, in whose collection, now inherited by the present

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* It is No. 320 of Mr. GARDNER's Brazilian Collection.

Duke, its large and truly beautiful flowers were expanded in November, 1840. I have thought it worthy to bear the name of this illustrious family, and to commemorate thereby the services rendered to Botanical science by the present possessors of Woburn, under whose auspices the collection of plants is maintained with undiminished splendour.

It will be at once seen that this belongs to the ABUTILON group, or Genus, as it is now almost universally considered, of SIDA, and that its affinity is with SIDA *picta*, figured by us in the number of the Magazine for October, 1840, (Tab. 3840,) but from which it is abundantly distinct, especially in the form of the calyx and petals.

DESCR. A small *tree*, with rounded, glabrous *branches*. *Leaves* also glabrous, the older ones of very large size, the others smaller, all of them deeply cordate, acuminate, bluntly dentato-serrate, seven-nerved, the principal nerves united by numerous transverse ones. *Peduncles* as long as, or longer than the leaf. *Stipules* small, subulate, soon deciduous. *Peduncles* from the axils of the younger leaves, and about equal in length with those leaves, solitary, or more frequently two together, erect, furnished with a joint (whence the flower often falls before it has ripened fruit), glabrous. *Calyx* clothed with minute pulverulent down, short and broad, urceolate, truncated and even indented at the base where the peduncle is inserted, contracted at the mouth; cut nearly half-way down into five, reflexed, acute segments. *Petals* large, handsome, yellow, richly veined with blood colour, broadly rotundate, concave, erecto-patent, imbricating with the edges, suddenly contracted into a short, broad claw, which has a glandular depression. *Stamens* about equal in length with the corolla: *anthers* numerous. *Ovaries* densely woolly. *Style* divided from below the middle into a number of slender, filiform branches, each tipped with a capitate, yellow *stigma*. *Fruit* (as in the native specimens gathered by Mr. GARDNER) large, of many compressed, downy *carpels* or *follicles*.

Fig. 1. Petal. 2. Ovaries: *magnified*.

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MARIÁNTHUS CÆRÚLEO-PUNCTÁTUS. BLUE-SPOTTED MARIANTHUS.

* *

Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—PITTOSPOREÆ.)

Generic Character.

Calyx minimus, quinquepartitus, laciniis æqualibus. *Petala* 5, æqualia, spathulata unguibus linearibus basi conniventia, apice campanulato-patentia. *Stamina* 5, hypogyna, adscendentia; *antheræ* ovatæ, obtusæ, basi emarginata insertæ, longitudinaliter dehiscentes. *Ovarium* declinatum, oblongum, compressum, biloculare. *Ovula* in loculis plurima, biseriata, anatropa. *Stylus* filiformis subfalcatus, ovario continuus; *stigma* capitatum. *Fructus* . . . . . *Hugel.*

Specific Character and Synonyms.

MARIANTHUS* *cæruleo-punctatus;* ramis pubescentibus filiformibus longissimis volubilibus, foliis brevi-petiolatis evanescente villosiusculis inferioribus spathulatis brevissime acutis grosse serrato-dentatis aut pinnatisectis superioribus oblongis utrinque acutis integerrimis, pedunculis solitariis pubescentibus in apice ramulorum oppositifoliis corymbosis 7—19 floris, floribus pallide violaceis, foliolis calycis pilosis, corollæ petalis oblongis acutissimis 3 superioribus medio expallentibus cæruleo-punctatis, antheris cæruleis. *Link, Klotz., et Otto.*

MARIANTHUS cæruleo-punctatus. *Link, Klotz. Sch. et Otto, Icon. Pl. Rar. Hort. Reg. Bot. Berol. p. 28. t. 12. Drummond Swan River, Pl. No. 3, in Herb. Hooker.*

This very curious and interesting plant flowered in the stove of Mr. CUNNINGHAM's Nursery, Comely Bank, Edinburgh, in March, 1841, I believe for the first time in Britain, and very soon after it flowered in the greenhouse of the

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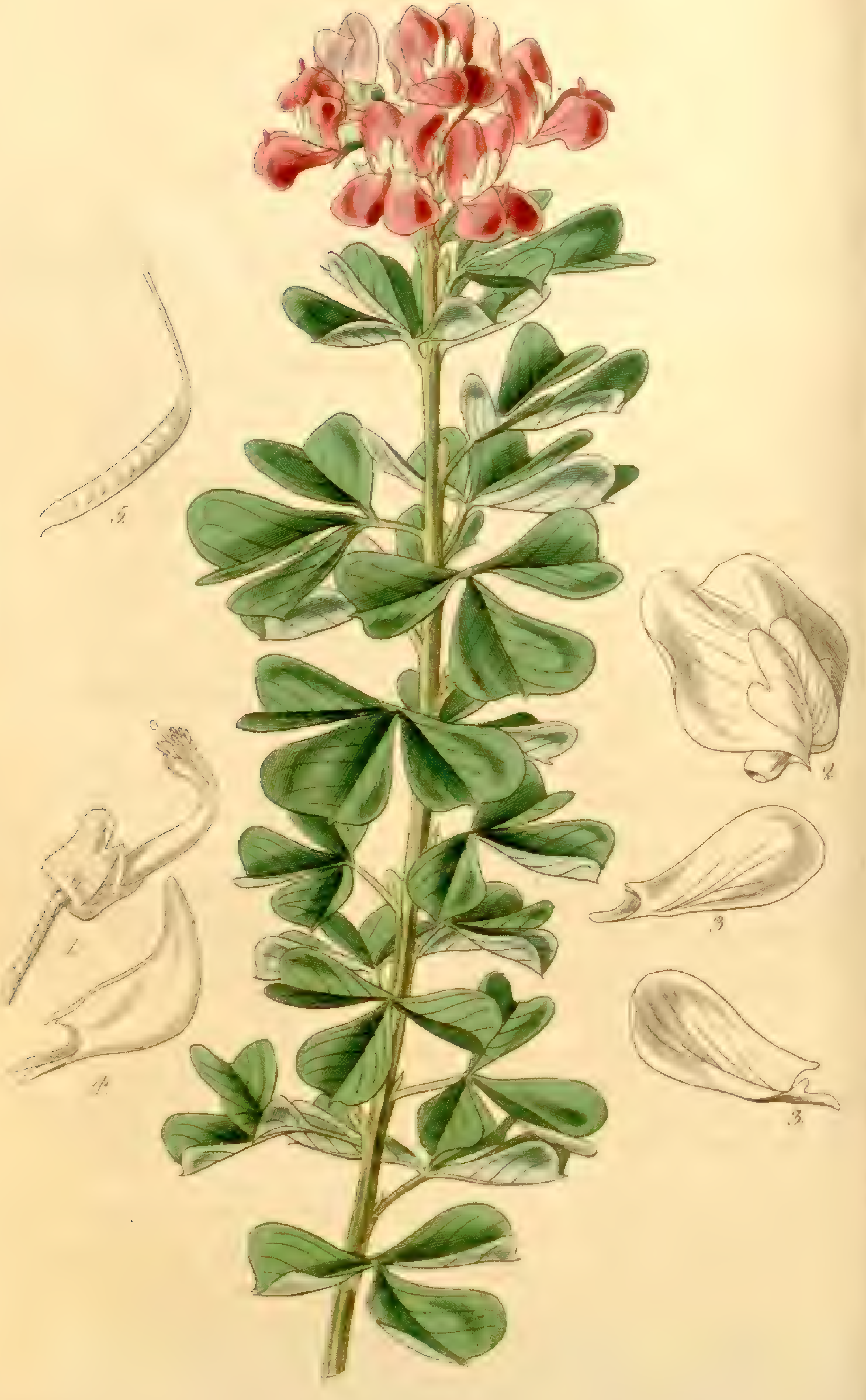
* I am unacquainted with the derivation of this word. Probably, however, it is dedicated to the Virgin Mary, on account of the pure whiteness of the blossoms of the first discovered species.

Royal Botanic Garden. These were weak specimens; and neither from them, nor even from the Berlin figure quoted above, could I have had any idea of the beauty of the species. The specimen in Sir WILLIAM HOOKER's Herbarium, however, from which in part the accompanying figure is taken, shows how very ornamental the plant will be as soon as the best mode of cultivating it shall be ascertained. Both Mr. CUNNINGHAM's specimen, and those which we possess in the Botanic Garden, were obtained from Mr. LOWE of Clapton, who informs me that he raised it in 1839 " from seed received from Mr. WILLIAM MORISON of the Swan River Settlement, and marked SOLLYA, or BILLARDIERA sp., from the Darling range of Mountains." The Clapton nursery is distinguished by many seedling novelties from the same settlement.

DESCR. *Stem* slender, woody, branched, twining, having adpressed pubescence. *Leaves* (two inches long, half an inch broad) nearly sessile, scattered, spreading, green, paler behind, covered on both sides with long, subappressed, somewhat deciduous hairs; the upper lanceolato-elliptical, entire, the lower spathulate, inciso-serrated; *midrib* channelled in front, prominent behind, *veins* oblique, seen chiefly behind, slightly reticulated. *Stipules* none. *Peduncles* solitary, opposite to the upper leaf, elongated, erect, umbellato-cymose, many-flowered, slightly covered with adpressed pubescence; *pedicels* rather shorter than the peduncle, several of them simple, others irregularly divided, erect, slender, swelling a little at the apex. *Bracts* placed at the origin of the pedicels, subulate, hairy, reflexed, caducous. *Flowers* erect, irregular. *Calyx* five-sepalous, *sepals* resembling the bracts, imbricated, subequal, linear-subulate, diverging at the apices, green, covered on the outside with long, spreading hairs, deciduous. *Corolla* irregular, lilac, paler on the outside, pentapetalous, hypogynous, glabrous, alternating with the sepals, unequal, the lowest the longest, each striated with three nerves behind, imbricated; *claws* converging into a tube, edges inflated; *limb* spreading, slightly reflexed, *laminæ* spathulato-lanceolate, apiculate, four of them ascending, the whole of the lower half of the two upper, and, generally, half the breadth of the lower half of the two next sprinkled on the inside with oblong, dark lilac spots. *Stamens* five, all fertile, alternate with the petals, and half as long as them, hypogynous; *filaments* nearly colourless, ascending, glabrous, swelling a little in their lower half; channelled on both sides, the lowest the longest; *anthers* dark lilac, bilocular, reflected at the apex, *lobes* diverging at the base, attached in the sinus, bursting by two elongated slits, which finally extend along the front to the base of the lobes; *pollen-granules* oblong, of dark lilac colour. *Pistil* shorter than the stamens, nearly straight; *stigma* minute, of two at length spreading teeth; *style* subulate, scarcely ascending; *germen* green, oblong, glabrous, shorter than the calyx, slightly furrowed on two sides, bilocular, raised upon a short, tumid footstalk. *Ovules* numerous, ovato-kidney-shaped, attached in the sinus by a short cord to an inconspicuous, central placenta. *Graham.*

Fig. 1. Flower. 2. Flower with the Petals removed. 3. The same, with the Calyx removed. 4. Pistil. 5. Fruit. 6. Section of Fruit. 7. Seed :—*magnified.*

3894.



W Fitch del.
Pub by S. Curtis Glazenwood Essex Sept 1 1841.
Swan sc.

(3894)

HYPOCALÝPTUS OBCORDÁTUS. OBCORDATE HYPOCALYPTUS.

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Class and Order.

DIADELPHIA DECANDRIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Calyx breviter 5-lobus, basi intrusa. *Stamina* monadelpha. *Legumen* compressum, lanceolatum.—Frutex *glaberrimus, foliis trifoliolatis, floribus purpureis.*

Specific Name and Synonyms.

HYPOCALYPTUS* *obcordatus.*
HYPOCALYPTUS obcordatus. *Thunb. Fl. Cap. ed. Schult. p.* 570. *De Cand. Prodr.* 2. *p.* 135.
CROTALARIA cordifolia. *Linn. Mant.* 266.
SPARTIUM sophoroides. *Berg. Cap.* 198.

An extremely pretty and very desirable Cape plant, of which, so far as I know, no figure exists in any publication. Yet it was introduced to our gardens by MASSON in 1790, and requires only the ordinary culture of Cape plants and the shelter of a greenhouse to induce its flowering, and then continues some time in perfection. It bloomed in May and June in the Glasgow Botanic Garden, where our figure was drawn. EKLON and ZEYHER give it as an inhabitant of CALEDON, and I possess fine specimens from the Prussian

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* So called from ὑπο, *beneath,* and καλυπτω, *to veil.* Named from a covering to the unopened flower, observable in most of the species so called by THUNBERG, but which are now referred to PODALYRIA. The character does not seem applicable to the only species that remains in the Genus.

Botanist, the late Mr. Mund, who gathered them both in flower and fruit on rocks near a stream at Kochman's Kloofs in October.

Descr. Our plant constitutes a *shrub,* one or two feet high, with virgate, angular *branches,* copiously leafy. *Leaves* trifoliolate, coriaceous, glaucous, obcordate, retuse and mucronate, glabrous, nearly sessile on a short *petiole,* penninerved, with a pair of small, membranous, deciduous *stipules* at the base of the petiole. *Flowers* terminal, at first corymbose, crowded, then lengthening into a many-flowered *raceme,* upon a toothed *rachis,* on the teeth of which the hairy pedicels are, as it were, articulated. Each *pedicel* has a pair of small, appressed *bracteas. Calyx* cup-shaped, singularly truncated and indented (intrusus) at the base where the pedicel is inserted, cut into five blunt, unequal teeth at the mouth, hairy. *Flowers* reddish-purple. *Vexillum* subrotundate, emarginate, with a short claw, reflexed, its sides bent back; on the lower disk is a large, yellowish-white four-lobed spot. *Alæ* obovate, spreading in their lower margins, almost connivent with the upper. *Carina* acuminate, the point rising above the margins of the alæ. *Stamens* monadelphous, with a fissure above. *Filaments* free for a considerable way below the oblong anthers, ten. *Ovary* linear, containing many *ovules,* and acuminated into a long, slender, *style,* with an obtuse *stigma.* The *pods,* which I have only seen on native specimens, are erect, two to three inches long, flat, coriaceous, glabrous, obscurely reticulated, brown, furnished with a thick margin at each edge, and terminated by the long, persistent, subulate *style.*

Fig. 1. Flower, from which the Corolla is removed. 2. The Vexillum. 3. 3. The Alæ. 4. The Keel. 5. Pistil :—*magnified.*

3895

W. Fitch del.

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Swan Sc.

BOSSIÆA TENUICAULIS. SLENDER-STEMMED BOSSIÆA.

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Class and Order.

DIADELPHIA DECANDRIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Calyx bilabiatus, labio superiore majore semibifido obtuso. *Stamina* omnia connexa. *Legumen* plano-compressum pedicellatum polyspermum, margine utroque incrassatum. *Semina* strophiolata.—Frutices *Australasici.* Rami *sæpe compressi.* Folia *nulla aut simplicia alterna.* Flores *flavi, carina sæpe purpurea aut fusca. D C.*

Specific Name and Character.

BOSSIÆA * *tenuicaulis ;* ramis teretibus diffusis filiformibus foliisque ovatis subacutis rigidis mucronulatis adpresse pubescentibus. *Graham in Ed. N. Phil. Journ. June,* 1840.

This plant was raised at the Botanic Garden, Edinburgh, from Van Diemen's Land seeds, sent by Mr. COOPER, gardener at Wentworth House, in April, 1836, and produced its rich and lively blossoms for the first time, in the greenhouse, in March, 1840. It seems to flower abundantly.

DESCR. *Shrub* procumbent; *branches* long, slender, straggling, round, leafy. *Leaves* subsessile, ovate, subacute, mucronulate, dark green above, paler below, rigid, denticulate and recurved in their edges, having adpressed pubescence on both sides, slightly bullate above, middle rib and reticulated veins prominent below. *Stipules* filiform, marcescent, reflected. *Flowers* solitary, axillary, pedunculate, crowded into pseudo-spikes at the extremities of the branches. *Peduncles* rather shorter than the leaves, with two minute, sub-opposite bracteolæ above the middle. *Calyx* glabrous, keeled along the upper side, bilabiate; the *upper lip* divided into two broad, rounded lobes, each with a tooth at its outer edge; *lower lip* of three small, revolute, ovate, acute teeth. *Corolla* (seven lines across) handsome; *vexillum* reflected, slightly revolute in its sides, kidney-shaped, notched, yellow, behind and in the throat streaked with red; *claw* obconical; *alæ* half as long as the vexillum, elliptico-obovate, yellow streaked with red, *claws* very slender; *keel* as long as the alæ, boat-shaped, blunt, dark red, its *petals* only connected with each other in the middle, and there slightly, *claw* slender and colourless. *Stamens* monadelphous, included within the keel; *tube* slit along its upper part, pale red; *anthers* ovate, yellow; *pollen* pale orange-coloured. *Pistil* as long as the stamens, stipitate, glabrous; *germen* compressed laterally; *ovules* about three. *Graham.*

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* So named by VENTENAT in memory of M. BOISSIEU-LAMARTINIÉRE, who perished with the unfortunate LA PEYROUSE, in his voyage round the world.

Fig. 1. Calyx. 2. Vexillum. 3. One of the Alæ. 4. Carina:—*magnified.*

3896

Pub by S. Curtis, Glazenwood Essex, Oct^r 1 1841

OXALIS LASIÁNDRA. DOWNY-STAMENED WOOD-SORREL.

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Class and Order.

DECANDRIA PENTAGYNIA.

(Nat. Ord.—OXALIDEÆ.)

Generic Character.

Calyx 5-sepalus, sepalis liberis aut basi coalitis. *Petala* 5. *Stamina* 10, filamentis basi breviter monadelphis, 5 ext. alternis brevioribus. *Styli* 5 apice penicilliformes aut capitati. *Capsula* pentagona oblonga aut cylindracea.—Herbæ *perennes, caulescentes, stipitatæ aut acaules, foliis variis sed nunquam abrupte pinnatis. D C.*

Specific Name and Character.

OXALIS *lasiandra;* foliis omnibus radicalibus dentatis, foliolis 7—9 oblongo-spathulatis parce pilosis apice integerrimis, scapo folia superante umbellato multi- (20-) floro, sepalis lineari-ellipticis obtusis apice striis quatuor confluentibus, staminibus inæqualibus longioribus dentatis stylos divergentes duplo superantibus. *Graham.*

This singular species is a native of Mexico, but I do not know from what part of that territory it was introduced, though, from its construction, I do not doubt that it is a native of the table land. It approaches most nearly to OXALIS *decaphylla,* or perhaps to O. *Hernandesii,* if these two be distinct from each other ; it differs from these, however, in the entire leaflets, the number and appearance of the hairs upon their surface, the number of flowers in the umbel, their colour, the spotting at the apex of the sepals, and in the unequal stamens. We received it at the Royal Botanic Garden, Edinburgh, from the Garden at Berlin, in

November, 1840, under the MSS. name adopted. Mr. James M'Nab tells me it is there cultivated in the open ground, forming an edging to the walks. With us, it flowered in the greenhouse, and continued in beauty during many weeks. At Berlin, in the open air, it was not above nine inches high, with us more than twice as much.

Descr. *Leaves* all radical, digitate; *petioles* round, red, pretty densely covered with long, spreading hairs, terminating in an abrupt, somewhat callous apex; *leaflets* seven to nine (three inches long, one broad), springing from callous bases around the edge of the apex of the petiole, elliptico-spathulate, quite entire at the apex and edges, undulate, rather coarsely veined, of dark green, and distantly sprinkled with long, spreading hairs above, below paler spotted with crimson and glabrous, except on the strong middle rib and veins, where there are hairs rather more numerous but shorter than on the upper surface of the leaf. *Scapes* rather larger than the petioles and twice as tall, paler red or greenish, fistulous only at the base, tapering towards the apex, having hairs similar to those on the petioles, but scarcely so numerous, umbellate, many (about twenty) flowered. *Bracts* formed into an involucre of several unequal, diaphanous scales. *Flowers* large and handsome, developed in succession, crimson, especially on the inside, and where the petals overlap each other, the exposed part of the outer side being paler than the rest. *Sepals* linear-elliptical, blunt, green, covered externally with glandular hairs, and having at the apex four orange-coloured lines, which coalesce upwards. *Petals* nearly thrice as long as the sepals, with very fine, glandular pubescence on the outside, obovate, entire, attenuated and greenish at the base, cohering above their insertion. *Stamens* ten, unequal, the shorter simple and about as long as the styles, the longer toothed on the outside, covered with glandular pubescence, and scarcely exceeding the length of the sepals; *anthers* yellow, elliptical, attached by the middle, turned outwards, and bursting longitudinally. *Pistil* everywhere glabrous and green: *germen* oblong, of five lobes; *styles* short, stout, furrowed on their inside, divaricated from their origin; *stigmas* large, warted. *Graham.*

Fig. 1. Sepal. 2. Stamens, including the Pistil. 3. Portion of the Stamens:—*magnified.*

W. Fitch delᵗ

Pub by S. Curtis Glazenwood Essex Sept 1 1841.

Swan Sc

(3897)

PLEUROTHALLIS PICTA. PAINTED PLEUROTHALLIS.

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Class and Order.

GYNANDRIA MONOGYNIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala conniventia, subæqualia; lateralibus vel omnibus connatis. *Petala* minora. *Labellum* liberum cum columna subparallelum, integerrimum, petalis difforme. *Columna* elongata, aptera, libera, cum ovario continua. *Anthera* apice membranacea. *Pollinia* 2, nunc materie pulverea ad apicem coherentia.—Herbæ *epiphytæ, rhizomate repente filiformi.* Caules *filiformes, monophylli, sæpius vaginati.* Flores *axillares, solitarii, vel fasciculati, vel racemosi, herbacei vel fusci. Lindl.*

Specific Name and Character.

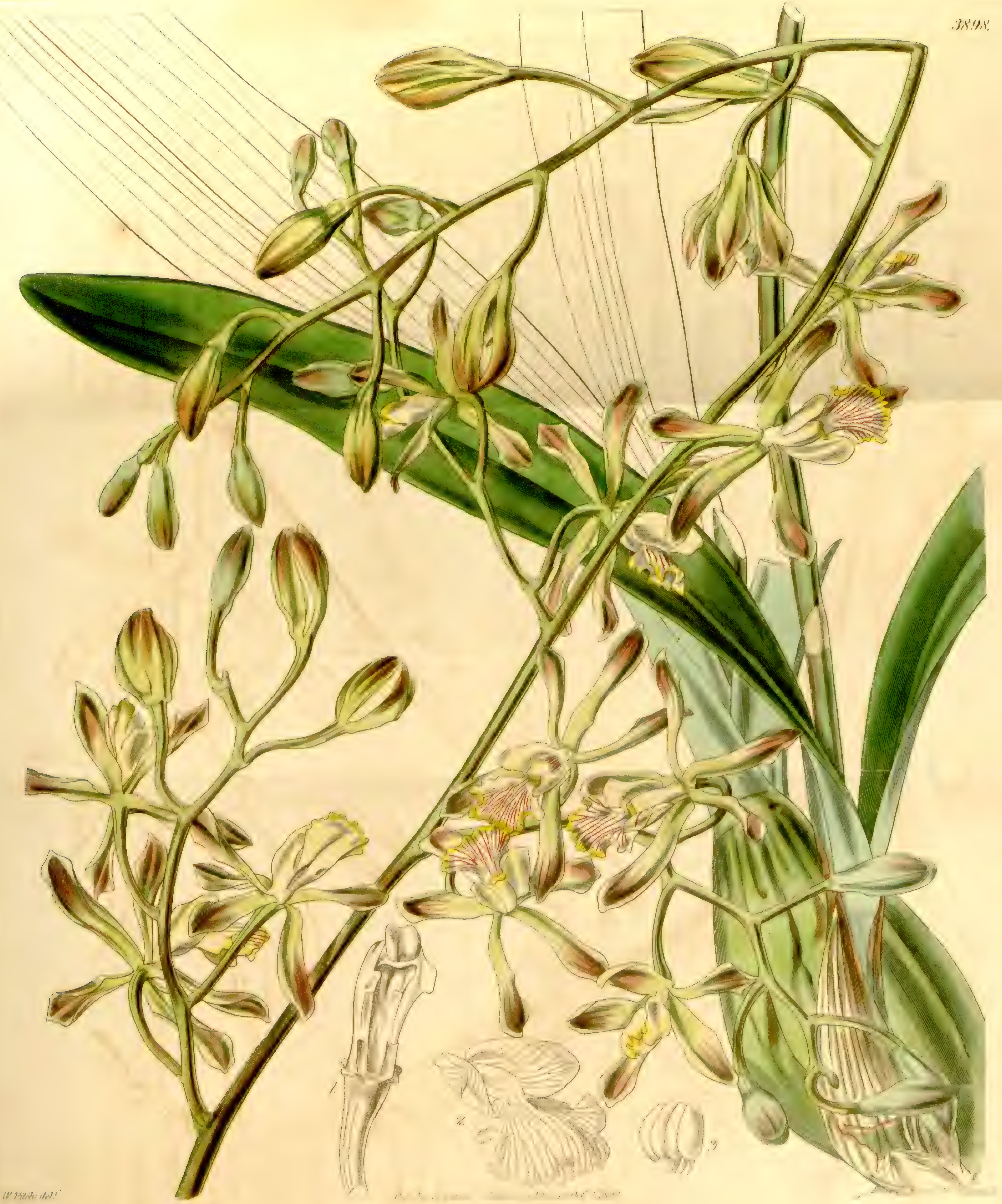
PLEUROTHALLIS *picta;* folio oblongo coriaceo caule vaginato racemoque longiore, spatha diphylla, racemo plurifloro, sepalis reflexis inferiore trilineato extus basi villoso duobus superioribus ultra medium unitis maculatis, petalis columna longioribus ovato-lanceolatis, labello ovato carnoso velutino-maculato obtuso intus basi profunde canaliculato, clinandrio dentato, anthera ovarioque pubescenti-tomentosis.

A very pretty Mexican EPIPHYTE, allied to our PLEUROTHALLIS *peduncularis,* (Journ. of Bot. v. 3. Tab. 9,) and to Dr. LINDLEY'S P. *strupifolia,* (Bot. Reg. 1839, Misc. n. 3,) but, as we think, abundantly distinct from both. It was introduced from Mexico by Mr. PARKINSON to the collection at Woburn, whence Mr. FORBES sent the accompanying flowering specimen in June, 1839.

Descr. *Stem* four or five inches high, covered for nearly its whole length with a pale brown, striated sheath, and terminated by a solitary leaf, six to eight inches long, oblong, coriaceous, obtuse. From the base of this leaf and within a two-leaved, membranaceous, ovato-acuminate spatha, arises the *raceme,* or rather *spike,* of several curious-looking flowers. The ground colour of the *flowers* is purplish cream colour. The *sepals* nearly equal, narrow-ovate, the lower one reflexed, with three dark purple streaks, extending the whole length of the outside (where it is hairy below), within having three short streaks at the base. *Upper sepals* united to above the middle, erecto-patent, externally dark purple, within spotted with purple tufts of velvety hairs. ***Petals*** small, erect, a little longer than the column, ovate, each marked with two streaks. *Lip* longer than the petals, ovate, obtuse, narrow at the base, with a deep furrow, densely marked with small, confluent spots. *Column* cream-coloured, with purple streaks, winged above. *Clinandrium* toothed. *Anther-case* deep red, velvety. *Column* downy.

Fig. 1. Flower, front view. 2. Back view of ditto. 3. Flower with the Sepals removed. 4. Column and Lip. 5. Anther-case. 6. Pollen-masses: —*magnified.*

3898.



W. Fitch del.

EPIDÉNDRUM CALOCHÉILUM. BEAUTIFUL-LIPPED EPIDENDRUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala patentia, subæqualia. *Petala* sepalis æqualia vel angustiora rarius latiora, patentia vel reflexa. *Labellum* cum marginibus columnæ omnino vel parte connatum, limbo integro vel diviso, disco sæpius calloso, costato vel tuberculato; nunc in calcar productum ovario accretum et cuniculum formans. *Columna* elongata; clinandrio marginato sæpe fimbriato. *Anthera* carnosa 2—4-locularis. *Pollinia* 4, caudiculis totidem replicatis annexa.—Herbæ *(Americanæ) epiphytæ;* caule *nunc apice vel basi pseudobulboso, nunc elongato apice folioso.* Folia *carnosa, rarissime venis elevatis striata.* Flores *spicati, racemosi, corymbosi vel paniculati, terminales vel laterales. Lindl.*

Specific Name and Character.

EPIDENDRUM (ENCYCLIUM) *calocheilum;* pseudo-bulbis ovato-oblongis apice diphyllis, foliis ensiformibus obtusis coriaceis obsolete striatis panicula elata multiflora brevioribus, sepalis petalisque lineari-oblongo-spathulatis uniformibus patentissimis, labello libero suborbiculari profunde trilobo basi carinato, lobis lateralibus late ovatis intermedio latissimo lineato margine undulato crispato, columna superne hinc ala obtusa.

This is another of the many fine Orchideous plants, for the possession of which the Woburn Collection is indebted to the unwearied exertions of Mr. SKINNER in Guatemala.

It was sent by that gentleman in October, 1839, and flowered in the stove in the same month of the following year. Nothing can well be more beautiful than the colouring and marking of the upper side of the labellum.

DESCR. *Pseudo-bulbs* four to five inches long, between ovate and oblong, compressed, furrowed, when young, clothed with membranous, striated *scales*, terminated by two sword-shaped, coriaceous, faintly-striated *leaves*, which are obtuse at the point. *Peduncle* or *scape* from the base of a young pseudo-bulb, two feet and more long, bearing a copious, spreading *peduncle* of many handsome, large-sized *flowers*. *Sepals* and *petals* uniform, spreading horizontally, linear-oblong, spathulate, rather acute, the sides bent back; the colour yellow-green with a dull purple blotch below the apex. *Labellum* shorter than the perianth, broadly, and in its outline almost orbicular, deeply three-lobed, free from any union with the column, except just at the base: the two side lobes moderately spreading, yellow veined, the veins reddish at the base, where there is a deep carina or fold; the middle lobe large, broad, very obtuse, deep yellow, singularly waved and crisped at the margin, beautifully marked with, as it were, beaded stripes, dichotomous and terminating within the margin. *Column* yellow-green, speckled with red, above, on each side, having a short, obtuse *wing*. *Anther-case* deep-yellow, somewhat hemispherical, but with a deep, broad furrow down the middle. *Pollen-masses* as in the Genus.

Fig. 1. Column. 2. Labellum:—*magnified.*

3899.

[illegible] del   Pub by S. Curtis Glazenwood Essex Oct 1 1841   Swan Sc.

(3899)

SÁLVIA CONFERTIFLÓRA; *var. β.* THICK-FLOWERED SAGE.

* * *

Class and Order.

DIANDRIA MONOGYNIA.

(Nat. Ord.—LABIATÆ.)

Generic Character.

Calyx bilabiatus, labio superiore integro v. 3-dentato, inferiori bifido. *Corolla* bilabiata, labio superiori erecto fornicato vel falcato, inferiori patente trifido. *Stamina* fertilia 2, sub labio superiori ascendentia. *Filamenta* brevissima, tubo inclusa. *Antheræ* dimidiatæ; connectivo elongato filiformi incurvo, postice sæpius clavato, rarius antheræ loculum alterum gerente. *Stylus* apice bifidus, lobo superiore sæpius breviore. *Achenia* sicca. *Benth.*

Specific Character and Synonyms.

SALVIA *confertiflora;* caule fruticoso, ramis rufo-tomentosis, foliolis petiolatis ovato-oblongis acutiusculis crenatis, basi cuneatis in petiolum subdecurrentibus supra rugosis adpresse pubescentibus subtus dense tomentosis, floralibus, nanis ovatis longe acuminatis reflexis vel deciduis, racemis elongatis, verticillastris crebris multifloris calycibus ovato-tubulosis tomentoso-lanatis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce dimidio longioribus extus aureolanatis, tubo exserto ventricoso, labiis abbreviatis, superiore recto inferiorisque lobo medio integro, connectivis postice breviter productis dilatatis deflexis longitudinaliter connatis, stylo glabro. *Benth.*

SALVIA confertiflora. *Pohl, Pl. Brasil. Ic. 2. p. 134. t.* 190. *Benth. Lab. p.* 276. *Lindl. Bot. Reg. vol.* 25. *t.* 29.

(γ.) foliis magis acuminatis, corollis longioribus coccineis.

An extremely beautiful Brazilian *Sage*, at least the variety here represented is of that character. Pohl, the original discoverer (among shrubs in the Serra d'Estrella and in the Padre Correa, Brazil) and describer of this plant, distinguishes two states of it; the one *corollis flavidis*, the kind he figures, and the other *corollis rubellis*. But the blossoms of our Salvia are of a much more beautiful colour than even the latter name would indicate: these corollas are likewise longer, more protruded from the calyx, and the leaves are more acuminated than in his figure. It was discovered in the Organ Mountains of Brazil, and by him sent to the Glasgow and other Botanic Gardens, where it has flowered during the autumnal months; and though able to bear the open border in the summer months, yet it comes to greater perfection in a warm greenhouse.

Descr. *Plant* three to four feet high, shrubby, everywhere more or less pubescenti-hirsute. *Stem* quadrangular, thickened and reddish at the angles. *Lower leaves* very large, six inches and upwards long, all of them ovate, petiolate, acuminate, coarsely serrated, wrinkled, beneath tomentose and pale. *Raceme* spiciform, very long, composed of numerous whorls of rather small and nearly sessile, bright-red *flowers*. *Calyx* deeply tinged with red, densely clothed, as is the corolla, with velvety hairs or tomentum. *Corolla* more than twice as long as the calyx, clavate, shortly two-lipped, very obtuse; *lips* nearly equal, both of them very concave; upper one entire, lower cut into three incurved lobes, of which the middle one is the longest and entire. *Anthers* with the clubbed apex of their *connectivum* conjoined.

Fig. 1. Flower. 2. Corolla laid open:—*magnified*.

3900.

W Fitch del.t Pub by S. Curtis Glazenwood Essex Oct.r 1 1841 Swan Sc.

MORMÓDES PARDÍNA. LEOPARD-SPOTTED MORMODES.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepalum superius fornicatum angustum; lateralia conformia reflexa. *Petala* latiora conformia, erecta. *Labellum* sellæforme, ascendens, trilobatum, subcuneatum, apiculatum, cum columna articulatum. *Columna* semiteres, mutica; *gynizus* longus angustus; *clinandrium* postice acuminatum. *Pollinia* 4, per paria connata, *caudiculæ* crassæ affixa, glandulæ carnosæ crassæ adherenti.—Habitus Cataseti. *Lindl.*

Specific Character and Synonyms.

MORMODES *pardina;* pseudo-bulbis turbinatis, foliis striatis 4-plo brevioribus; racemo nutante multifloro foliis breviore, sepalis petalisque subæqualibus ovato-lanceolatis acutis conniventibus, labelli trilobi lobis lateralibus acutis decurvis intermedio elongato acuminato. *Bateman.*

MORMODES pardina. *Bateman, Orchid. Mex. et Guatem. tab.* 14. *Lindl. Bot. Reg. Misc. v.* 24. *p.* 93. *n.* 176.

(β.) unicolor; floribus concoloribus. *(Nobis supra Tab.* 3879.*)*

To the spotted state of this plant, the type indeed of the species, we alluded at our Tab. 3879, where the var. *unicolor* is described. The present has a much more lively and showy appearance, the blossoms being everywhere

more or less spotted with deep blood-coloured dots: but being in other respects similar, it is needless for us to repeat the description there given. Both were received from Mr. Forbes, having been reared in the rich collection at Woburn Abbey.

Fig. 1. Column and Labellum:—*magnified.*

W. Fitch del.

Pub. by S. Curtis, Glazenwood, Essex, Dec. 1. 1841

(3901)

TITHÓNIA OVÁTA. OVATE-LEAVED TITHONIA.

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Class and Order.

SYNGENESIA SUPERFLUA.

(Nat. Ord.—COMPOSITÆ SENECIONIDEÆ.)

Generic Character.

Capitulum multiflorum heterogamum, *fl. radii* ligulatis neutris, *disci* hermaphr. 5-fidis. *Involucrum* 2—3 seriale, squamis ovatis basi intus striatis subcallosis apice foliaceo appendiculatis obtusis. *Receptaculum* convexum, paleis lanceolatis membranaceis achænia plus minus amplectentibus. *Corollæ* disci tubo brevissimo, fauce inflata multinervia. *Styli* rami subulati hispidi exserti revoluti. *Achænia* radii obcompressa seu triquetra, pappo brevissimo parco, disci subtetragona compressa lævia, pappo 1-seriali squamellis pluribus denticulatis, et in omnibus aut saltem in fl. centralibus setis 1—2 ex angulis fructus majoribus ortis coronata.—Herbæ *annuæ ex America Æquinoct.* Folia *alterna serrata triplinervia.* Rami *apice pedunculiformes 1-cephali subnudi.* Corollæ *croceæ seu flavæ.* *D C.*

Specific Name and Character.

TITHONIA * *ovata;* foliis oppositis ovatis acutis triplinerviis serratis, pedunculis subcorymbosis, involucri squamis imbricatis ovatis obtusis glabriusculis, achæniis compressis bialatis facie dorsoque acutangulatis, pappi paleis 4 alternatim majoribus serratis vel integris.

I am totally at a loss to refer this to its proper Genus, and have only placed it provisionally in that of TITHONIA.

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* So called from *Tithonus,* the favourite of *Aurora,* on account of the golden colour of its flowers :—" *couleur d'Aurore.*"

It is a strong-growing plant, raised in the open air by Mr. Glover of Manchester, from seeds imported from Mexico by his friend Mr. Leeds. It blossoms in the autumn, a season, when flowers that can give gaiety to our open borders, are peculiarly acceptable.

Descr. *Stem* tall, rounded, branched, hairy, the branches opposite, from the axils of the foliage. *Leaves* opposite, sessile, the bases (scarcely a petiole) amplexicaul, ovate, acute, serrated, triple-nerved, rough to the touch and wrinkled with numerous, reticulated veins, paler beneath. *Peduncles* short, terminal, sometimes solitary, at other times arranged in a sort of corymb of few *capitula*. *Florets* deep orange-yellow: those of the *ray* ligulate, female, the ligule elliptical, nerved, notched at the apex: the tubular portion slender. Young *achenium* obovate, compressed, two winged, and with two angles; *wings* and *angles* terminating in chaffy, lanceolato-acuminate, more or less serrated scales. *Paleæ* of the *receptacle* also clothed with acuminated, chaffy scales. *Florets* of the *disk* perfect. *Corollas* tubular, five-lobed. *Achenia* nearly as in the ray, but with the angles less prominent and less acute. *Pappus* nearly the same. *Branches* of the *style* spreading, much longer than the anther tube.

Fig. 1. Floret of the Ray. 2. Ditto of the Disk, with a Scale of the Receptacle. 3. Scales of the Pappus:—*magnified.*

3902.

[illegible] Pub. by S. Curtis Glazenwood [illegible] Oct. 1. 1841. [illegible]

(3902)

STROBILÁNTHES SÉSSILIS. SESSILE-FLOWERED STROBILANTHES.

* * *

Class and Order.

DECANDRIA MONOGYNIA.

(Nat. Ord.—RUELLIACEÆ.)

Generic Character.

Calyx 5-partitus, laciniis herbaceis. *Corolla* hypogyna, infundibuliformis, tubo sensim transeunte in limbum campanulatum, quinquefidum, laciniis æqualibus v. subæqualibus, obtusis v. emarginatis. *Stamina* 4, corollæ tubo inserta, inclusa, didynama; *antheræ* biloculares, loculis parallelis. *Stylus* simplex ; *stigma* subulatum, incurvum, v. involutum. *Ovarium* biloculare, loculis biovulatis. *Capsula* subunguiculata, tetragono-columnaris, bilocularis, tetrasperma, loculicide bivalvis, valvis medio septiferis v. dissepimento soluto. *Semina* discoidea, angulata, retinaculis uncinatis subtensa.—Frutices *v. rarius* herbæ, *in Asia tropica crescentes ;* foliis *oppositis ;* spicis *axillaribus v. terminalibus, plus minus densis ;* bracteis *foliaceis v. foliaceo-membranaceis, persistentibus v. caducis, bracteolis parvis v. rarius nullis ;* floribus *majusculis, cæruleis v. albis. Endl.*

Specific Character and Synonyms.

STROBILANTHES* *sessilis ;* herbacea hirsutissima, caule erecto quadrangulari, foliis sessilibus ovatis acuminatis crenatis, spicis axillaribus oppositis terminalibusque bracteis ovatis cuspidatis. *Nees.*

STROBILANTHES sessilis. *Nees von Esen. in Wall. Pl. Asiat. Rar.* 3. 85.—*Herb. Wight. n.* 1946.

This plant, whose blossoms are very handsome, was raised at the Botanic Garden, Edinburgh, from seeds sent by Dr. LUSK, from Bombay, in 1833, and flowered in the stove for the first time in October. 1839; but much more freely in April, 1841. I suspect there is a mistake in the opinion, that the species was first discovered in the southern part of the Peninsula of India. The idea has been suggested

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* So called from στροβιλος, *the cone of a Pine,* and ανθος, a *flower,* from the imbricated bracteas at the base of the flowers resembling a Pine-cone.

by its existing in the Herbarium of Dr. Wight; but this is not sufficient evidence. I am convinced Dr. Wight had it in very sparing quantity, because he most liberally distributed his duplicates; I partook, through his great kindness, very largely of them; but I have no specimen of this plant. Further, Nees von Esenbeck observes, that Dr. Wight gives no locality for the species; and, lastly, I find it stated in Graham's "Catalogue of Plants growing in Bombay and its vicinity," p. 163, that two supposed new species of the Genus had been sent by Mr. Law to Dr. Wight, I think it probable that one of these is our plant, and therefore, that the neighbourhood of Bombay is the only part of India where it has yet been observed. I have compared my plant with Dr. Wight's specimens, now in the possession of Dr. Arnott, and find them to be identical. The specimens are numbered 1946, not 38, as quoted by De Candolle.

Descr. Perennial. *Stems* (one foot six inches high) numerous, herbaceous, simple, erect, four-sided, very hairy; *hairs* very unequal in length, spreading, acute. *Leaves* opposite, decussating, spreading wide, subsessile, cordato-ovate, subacuminate, crenato-repand, with a little deflected callosity in each notch, wrinkled, concave above, where they are darker than below, covered with harsh hairs on both sides, *middle rib* and *reticulated veins* very prominent below, channelled above. *Capitula* shortly pedunculate, terminal, or in axils of the upper leaves, ovate, strobuliform. *Bracts* resembling diminished leaves, but less wrinkled, narrower, erect, slightly coloured. *Flowers* solitary and sessile, in the axils of the bracts, expanding in succession from below upwards, and several at a time. *Calyx* rather shorter than the bracts, five-partite, bilabiately compressed, pale green, hairy; segments lanceolate, subequal, the odd one superior, *hairs* glandular. *Corolla* funnel-shaped, rather more than twice as long as the bracts, lilac, closely covered on the outside with short, glandular pubescence, and within the tube having many long hairs; *tube* cylindrical and narrow for about half the length of the bract, or about one-fifth of its own length, above this inflated, this portion being also cylindrical when fully expanded, but previously compressed dorsally; *limb* five-lobed, subspreading, *lobes* short, round, or emarginate, subequal, much broader than long, folding irregularly, convolutely imbricated, the odd lobe inferior. *Stamens* four didynamous, included, inserted above the contracted portion of the tube, and applied along its upper side, the longest about two-thirds of the length of the corolla, and having their filaments hairy, the shorter half the length of the free portion of the others, their filaments glabrous, and connected at the base by a narrow, transverse, erect ridge, in the middle of which rises a small point, the rudiment of a fifth stamen; *anthers* large, bilocular, approximated in pairs, blunt, *lobes* parallel, opening along the front; *pollen* abundant, *granules* oblong. *Pistil* rather longer than the longest stamens; *style* hairy, swollen and geniculate towards the top; *stigma* subulate, and having a remarkable ridge along the upper side, leading to an elongated depression towards the knee of the style, both the ridge, which seems a free, thin, double membrane, and the depression being most conspicuous in the unexpanded flower; *germen* seated on an orange-coloured disk, oblong, green, glabrous except at the apex, where there are some short, glandular hairs, unilocular. *Ovules* two on each side of the incomplete dissepiment, ovate, compressed. *Graham.*

Fig. 1. Calyx including the Pistil. 2. Lower portion of the Corolla laid open. 3. Stamen. 4. Pistil, with hypogynous Gland. 5. Stigma. 6. Ovary and hypogynous Gland. 7. Ovary vertically, and 8, transversely laid open. 9. Ovulæ.

J. McNab del.t Pub. by S. Curtis Glazenwood Essex. Oct.r 1. 1841. Swan Sc.

(3903)

CHORIZÉMA SPECTÁBILE. SHOWY CHORIZEMA.

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Class and Order.

DECANDRIA MONOGYNIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Calyx semi-5-fidus bilabiatus, labio superiore bifido, infer. 3-partito. *Corolla* carinâ ventricosâ alis breviore. *Stylus* brevis uncinatus. *Stigma* obliquum obtusum. *Legumen* ventricosum, 1-locul., polyspermum, sessile aut subsessile.—Suffrutices *Australasici*. *Folia* alterna simplicia sinuato-dentata aut integra. *D C.*

Specific Character and Synonyms.

CHORIZEMA [*] *spectabile;* foliis sparsis elliptico-lanceolatis obovatis vel cuneatis planis integerrimis vel apice retusis mucronatis utrinque adpresse pilosiusculis, racemis paucifloris terminalibus axillaribusque, calycis labio superiore bifido obtuso; stigmate capitato. *Graham.*

CHORIZEMA spectabile. *Lindley in Bot. Reg. Miscel. May,* 1841, *et Tab.* 45.

This plant was raised in the nursery garden of Messrs. JAMES DICKSON & SONS, Edinburgh, in 1840, from a collection of seeds received from New Holland, but it was not known in what part of the country they were gathered. It flowered in the greenhouse at that establishment in March and April, 1841. We learn from Dr. Lindley, above quoted, that the species is a native of the Swan River Colony.

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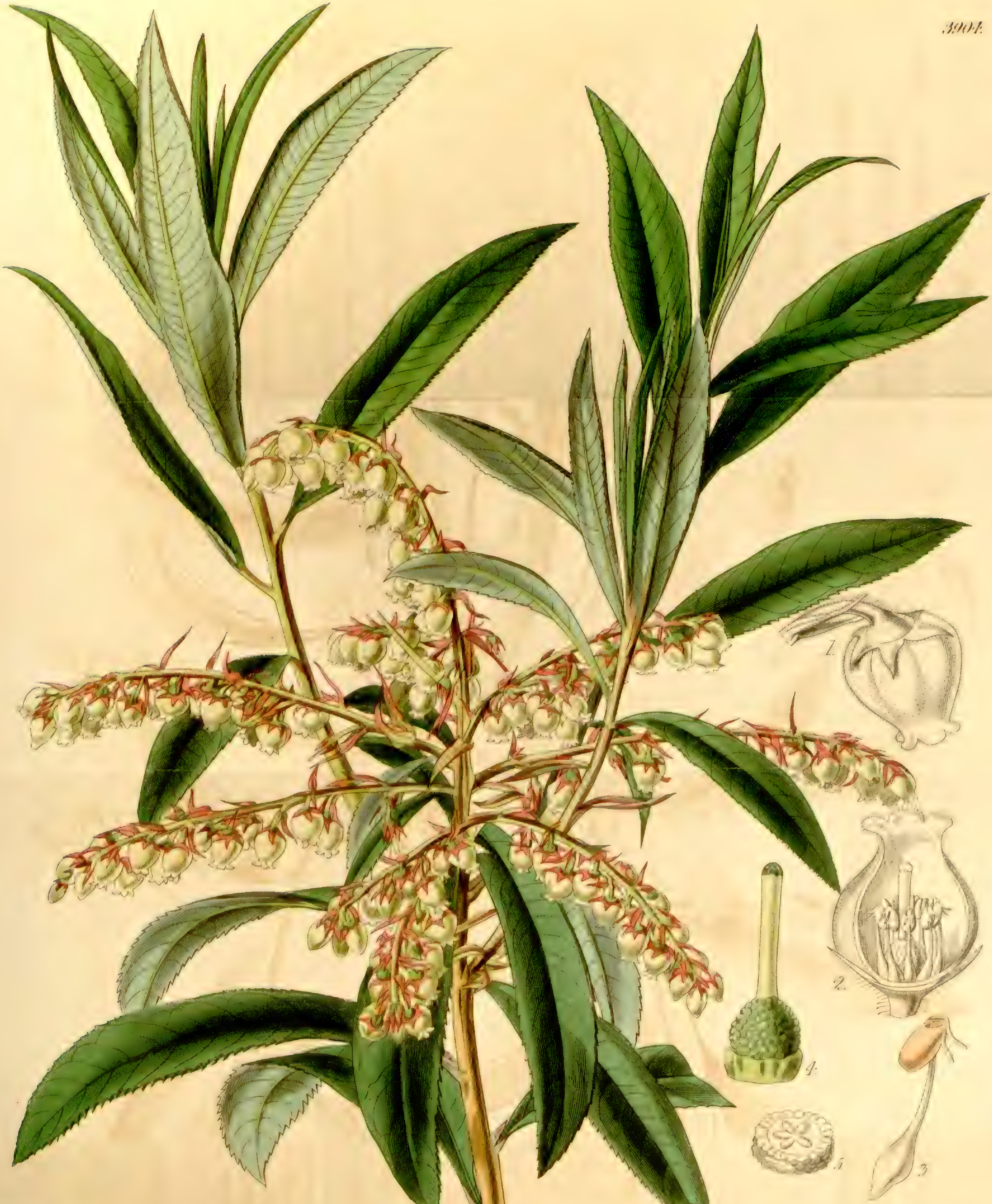
[*] DE THÉIS derives this word from χωρίζω *to separate;* because the fruit is distinctly separated into two equal parts. If SMITH'S derivation is correct, in the ninth volume of the Transactions of the Linnæan Society, (see under our Tab. 3607) the word ought to be *Chorozema*, with the *e* short: but LABILLARDIERE expressly writes it *Chorizema;* and Sir JAMES SMITH himself, in a subsequent publication, gives the preference to DE THÉIS' derivation, though he thinks it rather alludes to the free or separated stamens, than to the splitting of the fruit.

Descr. *Stem* branched, very slender, twining, wiry, with a few adpressed hairs. *Leaves* scattered, spreading, elliptico-lanceolate, obovate or cuneate, flat, entire in the edge or retuse at the apex, mucronate, slightly sprinkled with adpressed hairs on the dark green upper surface, rather more closely below where the colour is somewhat lighter; *midrib* prominent below, channelled above; *petioles* short; *stipules* subulate, erect. *Racemes* few-flowered, terminal or axillary, *pedicels* short, springing from the axils of leaves reduced to the size and appearance of the stipules, which remain by their sides at the lower flowers, at the upper the bracteas are shorter and ovate (from their union with the two stipules ?). *Calyx* bilabiate, with very few adpressed hairs, bibracteolate at the base; *lower lip* three-partite, segments lanceolato-ovate; *upper lip* bifid, segments blunt, diverging. *Corolla* smaller than in Chorozema *ovatum; vexillum* subrotund, retuse in the centre, orange-coloured, with an oblong, yellow spot in the throat, reflected, *claw* obconical; *alæ* darker and more red, about the same length as the vexillum, spread horizontally, their upper edges overlapping, cultrate, *claw* linear, *tooth* short and blunt; *keel* pale-yellow, much shorter than the alæ, blunt, its petals cohering only for a little way in the middle. *Stamens* free, included within the keel; *filaments* colourless; *anthers* pale-yellow. *Pistil* rather shorter than the stamens; *stigma* capitate; *style* glabrous; *germen* shortly stipitate, silky: *ovules* several. *Graham.*

Fig. 1. Stipules. 2. Flower. from which the Corolla is removed. 3. Vexillum. 4. One of the Alæ. 5. Carina. 6. Ovary. 7. Fruit invested by the Calyx:—*magnified.*



W. Fitch del.

Pub by S. Curtis Glazenwood Essex Nov. 1. 1841.

(3904)

ARCTOSTÁPHYLOS NÍTIDA. SHINING ARCTOSTAPHYLOS, OF BEAR-BERRY.

* *

Class and Order.

DECANDRIA MONOGYNIA.

(Nat. Ord.—ERICACEÆ.)

Generic Character.

Calyx 5-partitus persistens. *Corolla* ovato-urceolata, ore 5-dentato revoluto brevi. *Stamina* 10 inclusa, filamentis basi subdilatatis sæpius piloso-ciliatis, antheris compressis apice biporosis lateraliter biaristatis, aristis reflexis. *Ovarium* globoso-depressum squamis 3 carnulosis cinctum. *Stylus* brevis. *Stigma* obtusum. *Bacca* (seu *drupa* baccata) globosa, 5-rarius 6—7-imo 10-locularis, loculis 1-spermis !—Suffrutices fruticesve. Folia *alterna sæpius persistentia, integra aut denticulata.* Racemi *terminales bracteati.* Corollæ *albæ aut rubræ.* Fructus *rubri aut nigri. D C.*

Specific Character and Synonyms.

ARCTOSTAPHYLOS[*] *nitida;* erecta, fruticosa, cortice decidua, foliis breviter petiolatis lanceolatis acutis argute dentatis basi angustatis utrinque ramisque glaberrimis subtus albo-glaucescentibus, racemis paniculato-ramosis rachi pedicellisque pilosulis.

ARBUTUS discolor. *Hook. Ic. Plant. v.* 1. *t.* 29.

ARCTOSTAPHYLOS discolor. *De Cand. Prodr. v.* 7.

This extremely beautiful shrub was raised by J. T. MACKAY, Esq., at the Dublin College Botanic Garden, from seeds

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[*] From αρκτος a *bear,* and σταφυλη, *grape* or *berry:*—the same as our English word *Bear-berry.*

seeds sent to him five years ago from Mexico, *e regione frigida,* and flowering specimens were transmitted to us in May, 1841. A more desirable plant has not been introduced for a long time to our collections, and we have great hopes it may prove hardy. Certainly the slight protection of a frame will defend it from our severest cold.—It was found at Toluca by ANDRIEUX, and is n. 262 of his collection.

DESCR. A graceful *shrub;* with glabrous, erect *branches,* clothed with shining, pale brown *bark* in the older portions, and there deciduous; yellow-green tinged with red in the younger ones. *Leaves* alternate, on short, reddish *petioles,* from four to five inches long, coriaceous, oblong-lanceolate, acute at both ends, dark-green above, pale and glaucous beneath, the margins closely, though unequally, glanduloso-serrate, penninerved, the nerves conspicuous on both sides. From the apex of a branch, and generally from the axil of two annotinous shoots, a rather copious compound, or paniculated, many-flowered *raceme* arises, the *branches* patent, hairy, the *flowers* secund and pendent. *Pedicels* about two lines long, hairy, thickened upwards, the hairs slender and glandular at the apex. *Bracteas* subulate, red, shorter than the pedicels. *Calyx* of five deep-red, spreading, ovato-acuminate teeth. *Corolla* almost pure white, urceolate, pubescenti-hirsute, the *limb* with five blunt, spreading teeth. *Stamens* ten, erect, half the length of the corolla. *Filaments* much dilated above the base. *Anthers* tawny, each cell opening by a pore at the apex, and at the back of the pore is a reflexed awn. *Germen* globose, thickly set with green tubercles, and surrounded by a fleshy, obscurely ten-toothed *disk.* *Style* thick, longer than the stamens. *Stigma* obtuse, green.

Fig. 1. Flower with its Pedicel and Bracteas. 2. Corolla laid open to show the Stamens and Pistil. 3. Single Stamen. 4. Pistil and Disk. 5. Section of the Ovary:—*magnified.*

3905.

W. Fitch del.

Pub. by S. Curtis Glazenwood Essex Nov. 1 1841.

Swan Sc.

KREYSIGIA MULTIFLORA. MANY-FLOWERED KREYSIGIA.

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—MELANTHACEÆ.)

Generic Character.

Perianthium 6-phyllum, petaloideum, patens, æquale, deciduum, foliolis, æstivatione involuta, basi utrinque glandulosis. *Stamina* 6, receptaculo inserta. *Antheræ* posticæ. *Ovarium* 3-loculare, loculis biovulatis. *Semina* abortione solitaria.

Specific Name and Synonyms.

KREYSIGIA[*] *multiflora.*
KREYSIGIA multiflora. *Reichenb. Icon. Exot. v.* 3. *p.* 11. *Tab.* 229. *Don, in Linn. Trans. v.* 18. *p.* 522.
TRIPLADENIA Cunninghamia. *Don, in Proceed. of Linn. Soc. n.* 5. *p.* 46.

A very pretty, half-hardy, herbaceous plant, with the habit of STREPTOPUS, a native of the Illawara district in New South Wales, where it was discovered by the late Mr. ALLAN CUNNINGHAM, and introduced to the Royal Gardens of Kew in 1823. It bears its pleasing rose-coloured flowers in the summer months: they continue in perfection for some time, and are then succeeded by the somewhat pear-shaped fruits.

DESCR. *Stem* herbaceous, erect, flexuose. *Leaves* alternate, distichous, ovato-acuminate, striated, amplexicaul at the base. From the axils principally of the lower leaves arises the *peduncle,* bearing an imperfect umbel of from generally two to three rays, with a small, three-leaved *involucre* at the base of the rays. *Perianth* rose-coloured, of six spreading, oblong, obtuse *sepals,* white at the base, and having there on each side, three short, fleshy *filaments,* each terminated by a yellow, globose gland. *Stamens* six, inserted on the receptacle, white. *Filaments* subulate. *Anthers* oblong. *Germen* globose. *Style* very short. *Stigmas* three, linear. *Capsule* globoso-pyriform, with three obtuse angles, three-celled : each cell with one perfect seed.

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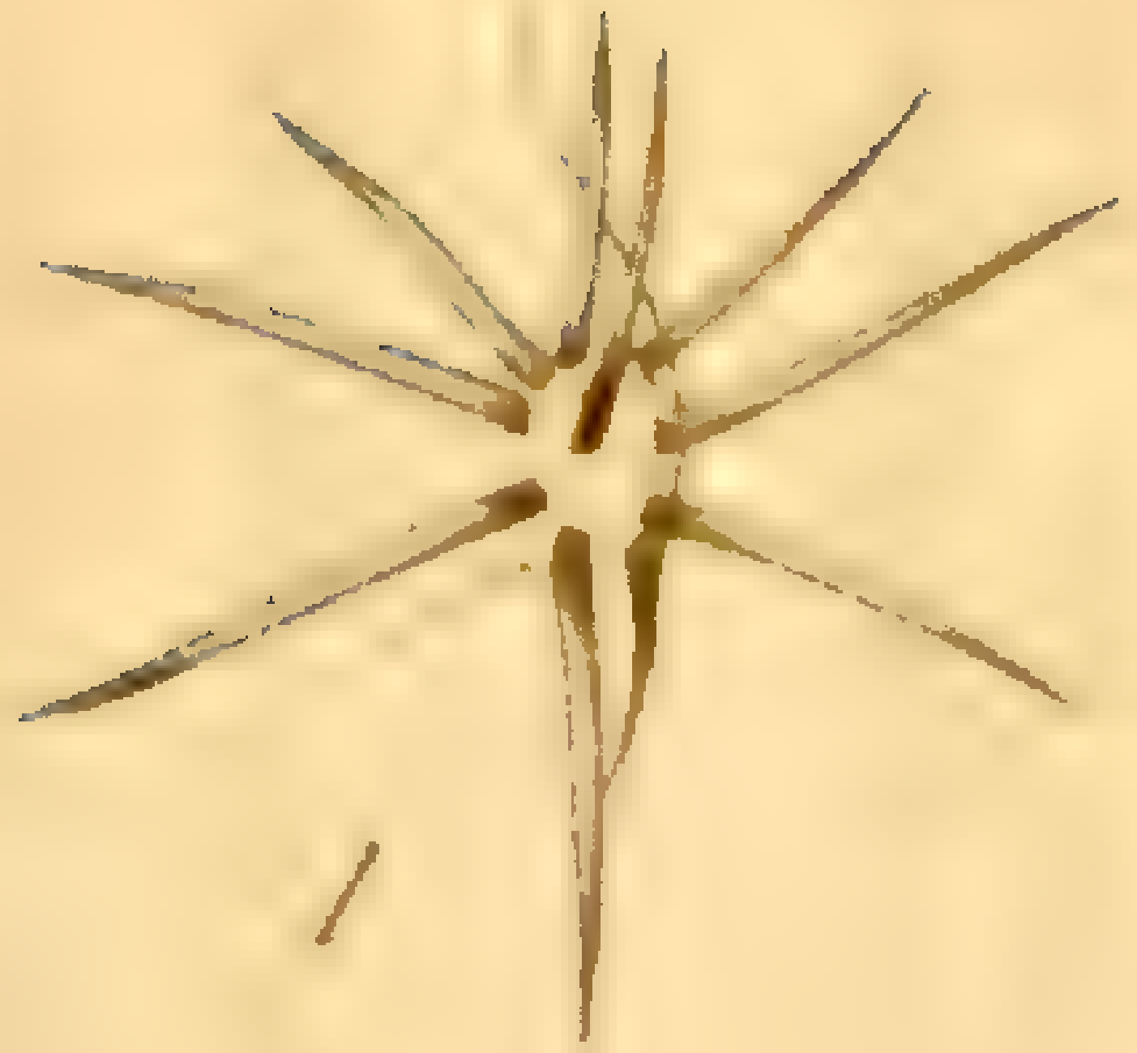
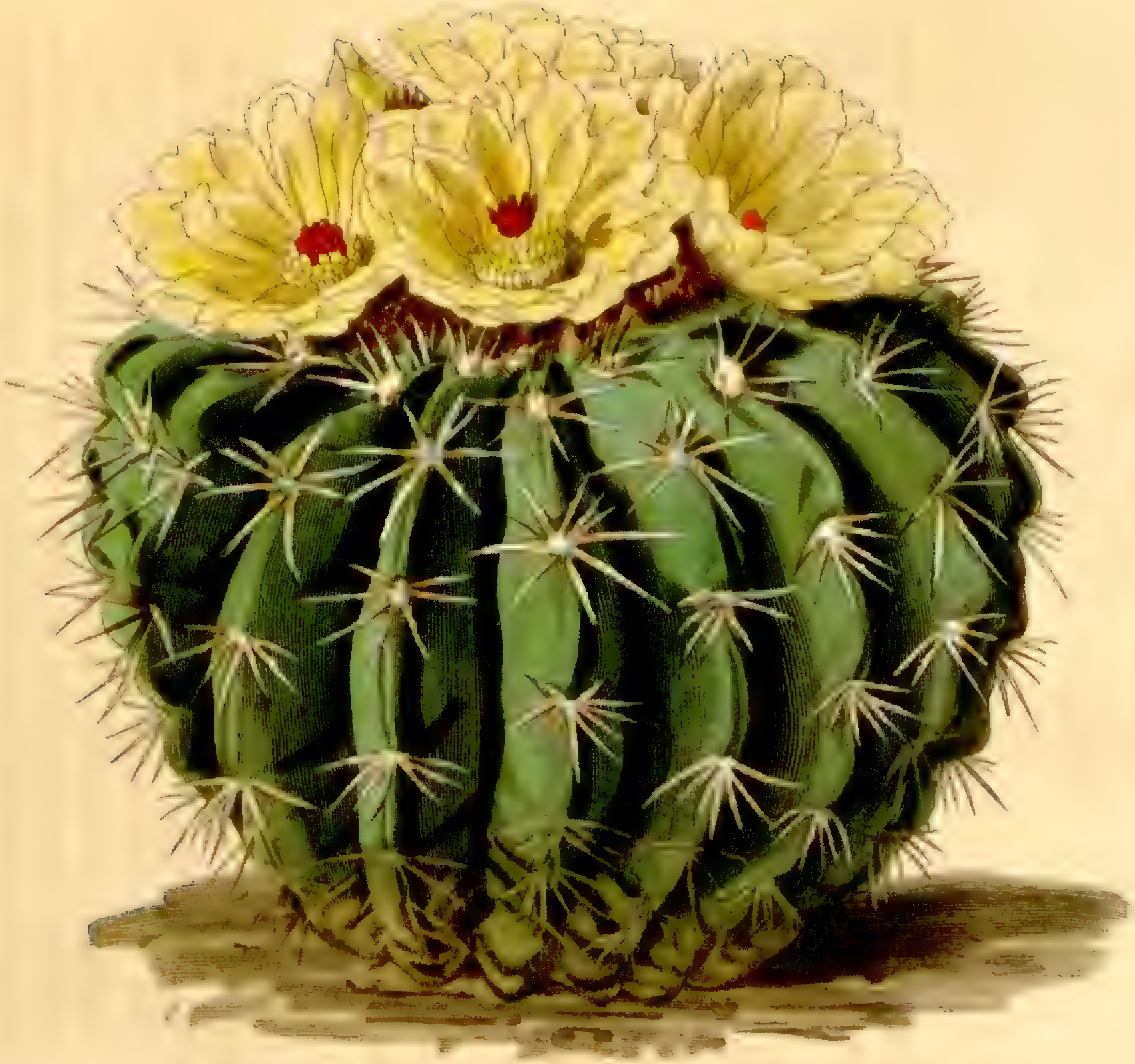
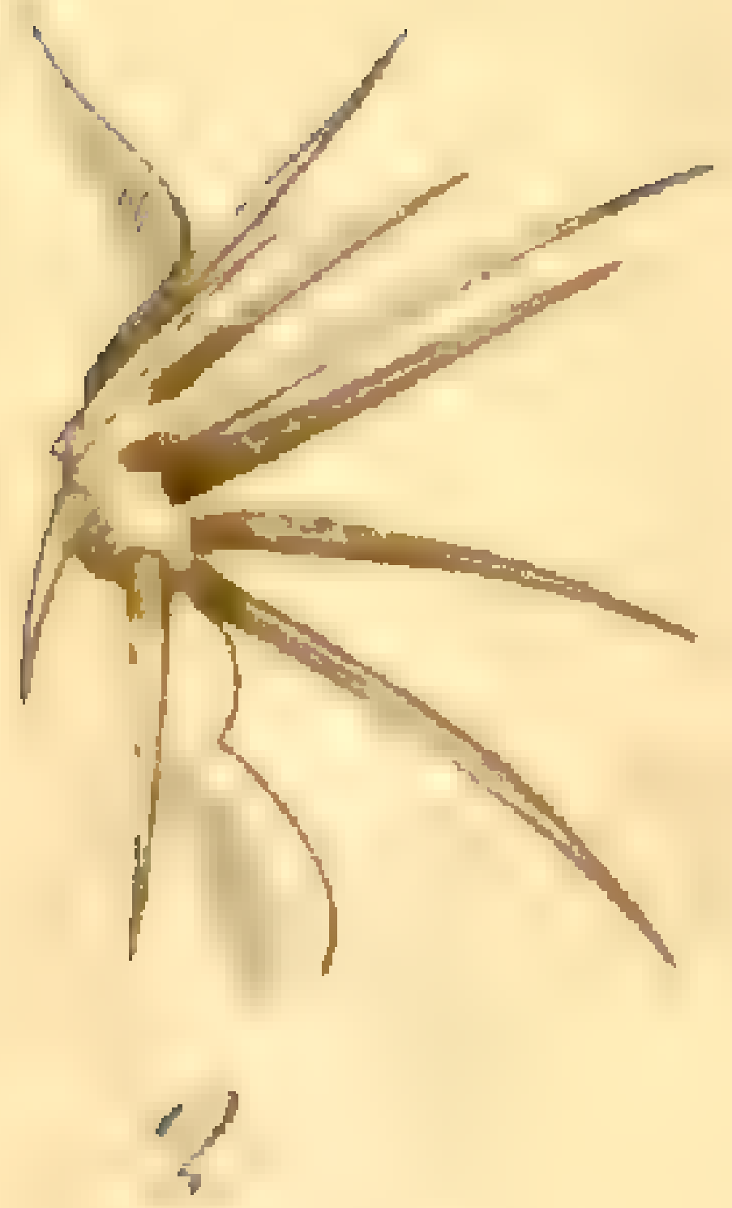
[*] So named by REICHENBACH, probably in compliment to some Botanist of the name of KREYSIG.

Fig. 1. Sepal with its Gland. 2. Stamens and Pistil. 3. Section of a Capsule. 4. Capsule :—*magnified.*







W. Fitch del.

Pub. by S. Curtis, Glazenwood, Essex Nov 1. 1841

Swan Sc.

ECHINOCÁCTUS CORYNÓDES. MANY-FLOWERED ECHINOCACTUS.

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Class and Order.

ICOSANDRIA MONOGYNIA.

(Nat. Ord.—CACTEÆ.)

Generic Character.

Sepala numerosa imbricata, basi ovario adnata, in tubum brevissimum concreta, exteriora involucriformia, intima petaliformia. *Stamina* numerosa, calyci affixa, inæqualia, intima brevissima, filiformia, antheris oblongis. *Stylus* cylindricus, subfistulosus, apice multifidus. *Bacca* sepalorum reliquiis subsquamata, rarissime lævis. *Cotyledones* parvulæ.—Frutices *simplicissimi carnosi, ovati aut globosi, melocactoidæi aut mammillariæformes, aphylli, costati aut tuberculati, costis tuberculis confluentibus quasi formatis, dorso aculeorum fasciculos gerentibus.* Cephalium *seu* spadix *nullus.* Flores *e fasciculis aculeorum ad apicem costarum orti, similis floribus* Cerei, *sed tubo vix supra receptaculum elongato.—Pfeiff.*

Specific Character and Synonyms.

ECHINOCACTUS *corynodes;* depresso-globosus basi attenuatus obscure viridis 16-angularis, vertice impresso, sinubus angustis acutis, costis acuatis crenatis, areolis immersis junioribus albis villosissimis tandem nudis, aculeis exterioribus 9 patentibus nascentibus rubris dein fuscescentibus centrali 1 erecto subulato brunneo reliquos non superante omnibus rectis rigidis. *Pfeiff.*

ECHINOCACTUS corynodes. *" H. Berol."—Pfeiff. Enum. Cact. p.* 55.

" E. rosaceus, Sellowianus." *Hort.*

From the rich collection of CACTEÆ in the Royal Botanic Garden of Kew, where it flowers during the summer

months, when its copious bright sulphur-coloured flowers with the red eye (the cluster of stigmas) give it a beautiful and showy character.

Pfeiffer, who seems alone to have described this species, remarks that the young and adult plants are very different; the former being of a deeper green; with the areolæ crowded; the aculei longer, more rigid, and brown. The adult he describes as three to four inches in diameter, two to three high: the areolæ six to eight lines long, distant: the aculei five to six lines long.—Our *plant* is of larger dimensions than that now specified, as seen by our figure. The form is subglobose, but depressed at the top, and narrowed at the base: the colour a rather deep somewhat glaucous green. The sides are cut into about sixteen deep, vertical furrows, and as many prominent, crenated ridges. The crenatures are from half to three quarters of an inch apart, and in them is lodged a tuft of dense white wool, which is nearly obsolete in the lower crenatures. From these woolly crenatures arise the *aculei*, which are in number from seven to nine, spreading, rigid, five to six lines long, pale brown, deeper at the base, having besides a central, erecto-patent one, generally of an uniformly deep brown colour, and about equal in size to the rest. *Flowers* several from the crown of the plant, rich sulphur yellow, two inches in diameter, when fully expanded. *Tube* externally shaggy with brown wool. *Petals* in two or three rows, spathulate, crenate and almost laciniated towards the apex. *Stamens* numerous, pale yellow, crowded around the style. *Stigma* with the rays erect, bright scarlet.

Fig. 1. 2. Front and side view of an Areola, with Aculei.

3907

W. Fitch del.t Pub. by S. Curtis Glazenwood Essex Nov.r 1.1841. Swan Sc.

Franciscéa latifólia. Broad-leaved Franciscea.

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Class and Order.

Didynamia Angiospermia.

(Nat. Ord.—Scrophularinæ.)

Generic Character.

Calyx persistens, inflatus, campanulatus, quinquedentatus: dentibus æqualibus. *Corolla* hypocrateriformis; *limbus* quinquepartitus subæqualis: lobis rotundatis repandis, margine incumbentibus, tubus apice inflatus, incurvatus. *Stylus* apice incrassatus. *Stigma* bilobum. *Capsula* ovata, bilocularis, bivalvis, valvulis impartibilibus. *Pohl.*

Specific Name and Character.

Franciscea *latifolia;* ramis brevissimis patentibus, foliis lato-ellipticis subacutis, bracteis lanceolato-acuminatis calycibusque glabris, floribus paucis subracemosis terminalibus. *Pohl.*

The Genus Franciscea was established by Pohl in honor of Francis the First, Emperor of Austria; and from the great beauty of many of the species, and eminently so of this, it is well worthy of bearing so illustrious a name, and that of a sovereign who was so distinguished a patron of Botany. We have already figured one of the species at Tab. 2829 (F. *Hopeana,* or more properly, F. *uniflora*) of this work: but that and the present species, handsome* though they be, are yet far inferior to the F. *hydrangeæformis* and some others. All are natives of Brazil. The present one inhabits Tijuca, near Rio Janeiro, according to Pohl, whence living plants were introduced to the Botanic Garden of Schœnbrunn. Our native specimens in the Herbarium are from South Brazil, gathered by Mr. Tweedie; and from the same source, through the medium of the Earl of Arran, were derived the seeds which produced the plant here figured, and which were raised by Mr. Moore at the Glasnevin Botanic Garden, near Dublin. To him I am indebted for the drawing here published. The plant quite accords with Pohl's figure and description, except that the calyx is larger and more inflated in our specimens. Nothing can exceed the brilliant violet-purple of the blossoms. It is cultivated in the hothouse; but it would probably succeed equally well in the greenhouse.

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* Our figure was taken from the first flowers the plant produced; but Mr. Moore now writes me in a letter, dated Glasnevin, Oct. 4, 1841; "I am glad to state, that I think the glowing descriptions given of this plant, both by

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by the Earl of Arran and Tweedie will be fully realized. My large plant is in fine condition and showing abundance of flowers, having from two to four together; and I do not despair of seeing from thirty to forty blossoms upon it at one time during the ensuing month. I have kept it cool and rather dry in an airy greenhouse during the summer, finding it nearly deciduous and requiring a little rest. Shortly I shall remove it into a cool stove, where I cannot doubt it will flower freely."

3908

W. Fitch delt. Pub. by S. Curtis Glazenwood Essex Novr 1 1841. Swan Sc.

LASIOPÉTALUM MACROPHÝLLUM. LARGE-LEAVED LASIOPETALUM.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—BYTTNERIACEÆ.)

Generic Character.

Calyx persistens. *Petala* 5 glanduliformia. *Filamenta* 5 libera. *Antheræ* intus poris 2 dehiscentes. *Ovarium* 1, 3-loculare, loculis biovulatis. *Capsula* 3-valvis, septis valvaribus, dehiscentia loculicida. *Semina* strophiolata laciniata.—Stipulæ o. Folia *lineari-lanceolata integerrima.* Inflorescentia *cymosa oppositifolia.* *D C.*

Specific Name and Character.

LASIOPETALUM *macrophyllum;* foliis deltoideo-ovatis trinerviis, bracteis tribus lanceolato-ellipticis, segmentis calycinis intus glabris, ovario 5-loculare. *Graham.*
LASIOPETALUM macrophyllum. *Graham.*

This new and very distinct species was raised from New South Wales' seeds, transmitted to the Botanic Garden, Edinburgh, in July, 1835, by the late Mr. RICHARD CUNNINGHAM. It has been kept in the greenhouse, and flowered freely for the first time in May, 1841.

DESCR. *Shrub* erect. *Stem* robust, (in the specimen described, which is still growing freely, five feet high,) *bark* brown, cracked, rough; *branches,* and especially the young twigs, covered closely with light coloured tomentum mixed with stellate, rusty pubescence. *Leaves* (five to seven inches long, two and a quarter to three inches broad) petiolate, deltoideo-ovate, slightly cordate at the base, green and hispid above, densely covered with a white tomentum mixed with rufous, stellate pubescence below, especially along the ribs and veins, undulate, obscurely sinuated, when young tomentum and pubescence alike on both sides, three-nerved, and often with a small additional nerve on each side, reticulately veined, the nerves and veins prominent below. *Corymbs* opposite to the leaves, digitate, the branches flat during full flowering, before and after this period connivent. *Flowers* arranged alternately along the branches of the corymb, shortly pedicellate, cernuous, secund, so as to form a flat, continuous surface looking downwards. *Bracts* three, lanceolato-elliptical, at the apex of each pedicel, and adpressed to the outer side of the flower. *Calyx* five-partite, alternate with the bracts; *segments* ovate, acute, with seven parallel nerves on the inside, where they are greenish-white. *Petals* minute, purple, elliptical, undulate, alternate with the segments of the calyx. *Stamens* five, opposite to the petals; *filaments* nearly colourless, thrice as long as the petals, and about one-third of the length of the calyx; *anthers* purple, about half as long as the filaments, to which they are attached by the back, the face being turned outwards, linear, with an inconspicuous connective, bursting by two pores at the apex. *Pistil* about as long as the filaments; *stigma* inconspicuous; *style* straight, erect, and this with the inside of the calyx are the only parts attached to the corymb which are glabrous, every other portion being more or less densely covered with light tomentum and rufous stellate pubescence; *germen* globular, densely covered with harsh, stellate pubescence, which here is of a pinkish colour, five-locular; *cells* glabrous within, and containing several ovules attached to central placentæ. *Graham.*

Fig. 1. 2. Back and front view of a Flower. 3. Stamen. 4. Pistil. 5. Ovary cut through transversely. 6. Ovule :—*magnified.*

Miss E. Durham del.

Pub by S. Curtis Glazenwood Essex Nov 1 1841.

Swan Sc.

PREPÚSA HOOKERIÁNA. SCARLET AND WHITE-FLOWERED PREPUSA.

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—GENTIANEÆ.)

Generic Character.

Calyx laxe campanulatus, coloratus, sexfidus, ad suturas alatus. *Corolla* hypogyna, tubo brevi cylindrici, limbo campanulato sexfido, decidua. *Discus* hypogynus carnosus, corollæ tubo adnatus, persistens. *Stamina* 6, corollæ fauci inserta: *filamenta* æqualia, *antheræ* erectæ, immutatæ, longitudinaliter dehiscentes. *Ovarium* uniloculare. *Ovula* in placentis suturalibus plurima. *Stylus* filiformis, rectus; *Stigma* bilamellatum. *Capsula* unilocularis, bivalvis. *Semina* plurima, minima.—Frutex Brasiliensis; *ramis erectis fastigiatis; foliis decussatis, superne congestis; racemis terminalibus foliosis; floribus speciosis, luteis.*

Specific Name and Character.

PREPUSA [*] *Hookeriana;* herbacea, cæspitosa, foliis radicalibus lineari-spathulatis subcarnosis uninerviis, caulinis subconnatis, calyce campanulato maximo inflato 6-angulato colorato. *Gardner.*

This is one of the very many novelties which rewarded Mr. GARDNER's indefatigable researches during his five years' travels in Brazil. He had the good fortune to bring home living plants of it, which have been sent to the Botanic Gardens of Kew and Glasgow and other establishments. Our figure is, however, made in Brazil from recent native specimens, by Miss E. DURHAM, and we shall here give Mr. GARDNER's own description, drawn up from the living flowering plant at the same time. "This beautiful species of Prepusa inhabits the summit of the Organ Mountains, at an elevation of 6,857 feet above the level of the sea; growing in large patches in moist, exposed places, flowering in March and April. It is the third species of the Genus which has been detected*, and was one of the many discoveries that resulted from a visit of six days to the summit of the Organ Mountains in the month of March of the present year (1841); and it is with much pleasure that I dedicate it to my kind friend and patron Sir W. J. Hooker, as the most lasting memento I can offer him for his first suggesting my voyage to Brazil—his liberal assistance in enabling me to undertake it—and his unremitting kindness during my absence in directing my attention to such places and objects as were most likely to advance that Science to which we are both so devotedly attached."

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[*] From πρεπουσα, *conspicuous, showy,* according to MARTIUS; from the noble blossoms which the individual species bear, few being more ornamental in the eminently beautiful natural family to which the plant belongs.

Descr. *Root* perennial. *Stem* herbaceous, from a foot to a foot and a half high. *Radical leaves* opposite, linear, spathulate, apiculate, somewhat fleshy; one-nerved, about three inches long, and nearly half an inch broad. The flowering *stem*, which is of a pinkish purple colour, has from two to three pairs of cauline *leaves*, which are small and of a linear form, and somewhat connate at the base. *Flowers* large, nodding, generally from three to five in number, arising from the axils of the two upper cauline pairs of leaves. *Calyx* large, much inflated, membranaceous, of a paler colour than the stem, hexangular, with the angles very prominently marked at the base, six-toothed; *teeth* apiculate. *Corolla*, with the exception of the *limb*, included. The two upper thirds of the tube are urceolate, the lower very much contracted; and the whole is of a pale purple colour. The *limb*, which is of a yellowish-white colour, is spreading and six-lobed; *lobes* obovate, apiculate. *Stamens* six, arising from the bottom of the utricular portion of the corolla. *Filaments* filiform. *Anthers* versatile, oblong, two-celled. *Pollen* yellowish. *Ovary* placed on a short gynophone, cylindrical, one-celled, many-seeded. *Seeds* attached to four parietal placentæ, which are formed by the incurved margins of the two carpels of which the ovary consists, and which stand right and left to the axis of inflorescence. *Style* filiform. *Stigma* bilamellate.—*Organ Mountains, Brazil, April*, 1841.

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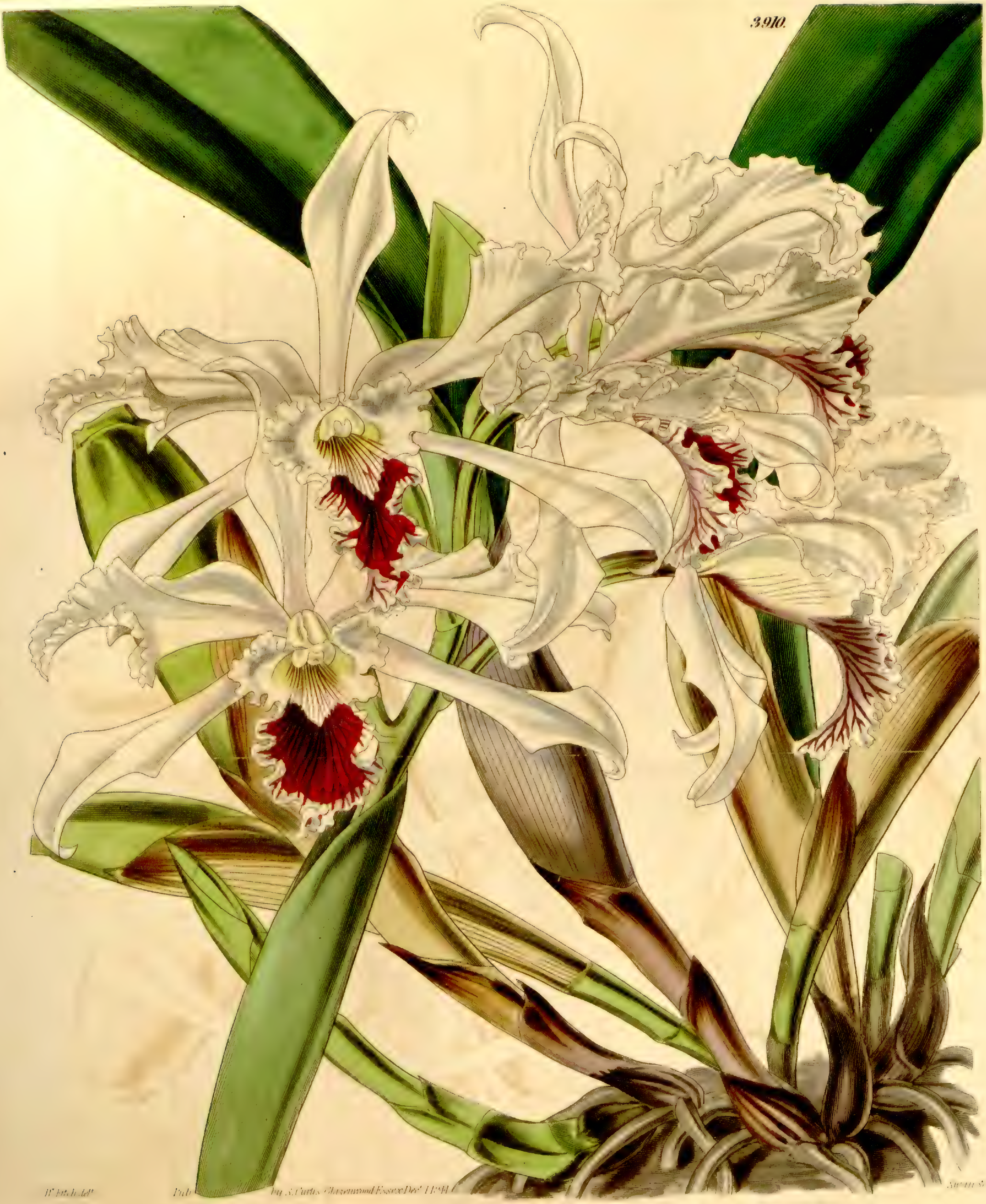
* The first is the original species, P. *montana*, Mart. Bras. tab. 190:—the second is the P. *connata*, Gardn. in Hook. Ic. Plant. v. 3. t. 225, 226. All are remarkable for their large and very showy flowers.

Fig. 1. Corolla. 2. The same laid open. 3. Stamen. 4. Pistil:—*magnified*.

3910.



W. Fitch del.

Pub by S. Curtis, Glazenwood Essex Dec.r 1 1841.

Swan Sc.

CATTLÉYA CRÍSPA. CRISP-FLOWERED CATTLEYA.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala membranacea vel carnosa, patentia, æqualia. *Petala* sæpius majora. *Labellum* cucullatum columnam involvens, trilobum vel indivisum. *Columna* clavata, elongata, semiteres, marginata, cum labello articulata. *Anthera* carnosa, 4-locularis, septorum marginibus membranaceis. *Pollinia* 4, caudiculis totidem replicatis.—Herbæ *epiphytæ (Americanæ) pseudo-bulbosæ.* Folia *solitaria vel bina, coriacea.* Flores *terminales, speciosissimi, sæpe e spatha magna erumpentes. Lindl.*

Specific Character and Synonyms.

CATTLEYA *crispa;* sepalis lineari-obovato-lanceolatis acutis, petalis latioribus oblongo-lanceolatis undulatis crispis, labelli indivisi limbo ovato acuminato quam maxime undulato-crispato, pseudo-bulbis subcylindraceis angulatis, spatha magna foliacea. *Lindl.*

CATTLEYA crispa. *Lindl. Bot. Reg. t.* 1172. *Gen. et Spec. Orchid. p.* 116.

Drawn at the Royal Botanic Garden of Kew, where this truly handsome species flowered in July, 1841. It is a native of Brazil, and has now been sent home by many Collectors from that fertile region, and seems to have been first introduced to our gardens by Sir HENRY CHAMBERLAYNE, Bart., in 1826. It may be numbered among the most beautiful of a highly beautiful Genus.

Descr. *Pseudo-bulbs* clustered, elongated, clavate, clothed with membranous sheaths, and bearing a large, solitary, coriaceous *leaf* at the extremity. From the axil of that leaf proceeds a large, compressed, sheathing, yellow-green *spatha,* with an oblique mouth, through which the *spike,* of five or six large, handsome, and fragrant *flowers* emerges. *Sepals* oblong, spathulate, their margins revolute, but not crisped, white or cream-colour, with a faint, purplish tinge. *Petals* also spreading, about equal in length with the sepals, but much broader, and the margins, especially in the upper half, singularly waved and crisped. *Lip* standing forward, recurved at the apex, oblong, acute, three-lobed, the lower or side-lobes rounded, white, yellow at the base and streaked with red, the middle or terminal one ovate, acuminate, the margin rich red-purple with deeper purple veins, all of them remarkably waved and crisped. *Column* and *anther-case,* &c., as in the Genus.

3911.

W Fitch del.ᵗ Pub. by S. Curtis Glazenwood Essex Dec.ʳ 1.1841. Swan Sc.

OPÚNTIA MONACÁNTHA, ONE-SPINED OPUNTIA; or Prickly Fig.

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Class and Order.

ICOSANDRIA MONOGYNIA.

(Nat. Ord.—CACTEÆ.)

Generic Character.

Sepala numerosa, ovario adnata foliiformia, summa plana brevia, intima petaliformia obovata, expansa, tubo supra ovarium nullo. *Stamina* petalis breviora, filamentis tenuibus, tactu subirritabilibus. *Stylus* cylindricus, basi constrictus. *Stigmata* 3—8 erecta crassa. *Bacca* ovata, apice umbilicata, tuberculosa, sæpius spinifera. *Embryo* subspiralis, teretiusculus. *Cotyledones* semiteretes, germinantes foliaceæ, planæ, crassæ. *Plumula* parva.—Frutices, *trunco ramisque cylindricis aut compresso-articulatis, articulis ovatis aut oblongis, fasciculos aculeorum aut setarum, ordine quincunciali seu spirali dispositis, gerentibus.* Folia *subulata sediformia, caducissima sub quoque fasciculo juniore.* Flores *e fasciculis aut marginibus articulorum orti, flavi, rubri aut albi.* Fructus *minuti vel magni, virides, flavi aut purpurei, sæpe ficiformes, edules, plerumque secundo vel tertio anno maturescentes. Pfeiff.*

Specific Character and Synonyms.

OPUNTIA *monacantha;* erecta elata, articulis obovatis crassiusculis glaucis, spinis subsolitariis subvalidis flavofuscis ad basin setis copiosis brevibus flavescentibus, petalis fulvo-aurantiacis, ovariis pyriformibus viridibus fasciculis setarum flavarum sparsis.

OPUNTIA monacantha. " *Willd. Enum. p.* 34 (sub Cacto). *Salm-Dyck, in litt.*" *De Cand. Prodr. v.* 3. *p.* 472. *(excl. Syn. De Cand. Pl. Grass. n.* 137. *cum tab.* 2.*) Pfeiff. Enum. Cact. p.* 164. *(excl. Syn. Bot. Reg. t.* 1726.)

CACTUS Opuntia Tuna. *De Cand. Pl. Grass. cum Ic.*

Rich as our gardens are in CACTEÆ, and much as these are prized by cultivators on account of the singularity of the forms of some and the exquisite beauty of the blossoms in others, it is greatly to be lamented that the synonymy of those that are described is so faulty, and that so many are ill characterized; every collection possessing many similar species under different names. With the opportunities we peculiarly enjoy, it may be expected that these difficulties in the way of a correct nomenclature will be obviated, although we almost despair of such an object being accomplished but by the help of good figures, of which, thanks to our excellent assortment of species in the Royal Gardens of Kew and the kindness of our friends, we are already in possession of a considerable number.

The present individual, especially, requires illustration. It is not uncommon in our stoves, and, at Kew, flowers readily during the summer months; and with us, and probably at other places, it has borne the name of OPUNTIA *Tuna;* it being unquestionably the CACTUS *Opuntia Tuna* of DE CANDOLLE (as regards his figure). This differs from the real *Tuna* of DILLENIUS, among other characters in its generally solitary spines. On this account it would appear that WILLDENOW distinguished it by the name of *monacantha,* which DE CANDOLLE himself, in his " Prodromus," has adopted;—but he has referred, inadvertently, it would seem, to his " Plantes Grasses," n. 137 cum Tab. 2, which is *his* CACTUS *coccinellifer* (the OPUNTIA *Tuna* of MILLER and PFEIFFER). PFEIFFER, on the other hand, quotes rightly the C. *Opuntia Tuna* of " Plantes Grasses," with its glaucous articulations and nearly solitary spines; but he unfortunately adds the synonym of O. *monacantha* of KER in Botanical Register, tab. 1726, which is a perfectly distinct plant from the original one of DE CANDOLLE, having differently-shaped articuli, of a bright, yet deep yellow-green hue, and strong, solitary spines, apparently quite destitute of the fascicles of setæ at their base.

It will be observed, that the spines of the present species, though usually solitary on the disk of the joints, are often geminate, or even fasciculate, at the margin.

The colour of the flower of our plant is deeper than the figure of DE CANDOLLE, but that appears to be the only difference between them. The species is supposed to be a native of Brazil.

3912.

[illegible] Pub. by S. Curtis Glazenwood Essex Dec.r 1 [illegible] Swan Sc.

ONCÍDIUM ORNITHORHÝNCHUM. BIRD'S-BEAK ONCIDIUM.

* * * * * * * * * * * * * * * * *

Class and Order.

GYNANDRIA MONOGYNIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium explanatum. *Sepala* sepius undulata ; lateralibus nunc sub labello connatis. *Petala* conformia. *Labellum* maximum, ecalcaratum, cum columna continuum. variè lobatum, basi tuberculatum v. cristatum. *Columna* libera, semiteres, apice utrinque alata. *Anthera* semibilocularis, rostello nunc abbreviato, nunc elongato rostrato. *Pollinia* 2, posticè sulcata, caudiculâ planâ, glandulâ oblongâ.—Herbæ *epiphytæ, nunc pseudo-bulbosæ.* Folia *coriacea.* Scapi *paniculati vaginati, rariùs simplices.* Flores *speciosi, lutei, sæpiùs maculati, raró albi.*

Specific Character and Synonyms.

ONCIDIUM *ornithorhynchum ;* pseudo-bulbis ovatis diphyllis, foliis ensiformibus recurvis scapo paniculato brevioribus, sepalis lineari-oblongis undulatis reflexis omnino liberis, labelli panduriformis lobis lateralibusacutis intermedio bilobo, crista e lamellis 5 crenatis apice rostratis constante, columnæ alis cuneatis dentatis, stigmate longe rostrato. *Lindl.*

ONCIDIUM ornithorhynchum. *Humb. et Kunth, Nov. Gen. Am. v.* 1. *t.* 80. *Lindl. Gen. et Spec. Orchid. p.* 204. *Batem. Orchid. Mex. et Guatem. t.* 4. *Lindl. Bot. Reg.* 1840, *t.* 10. *et Miscell. n.* 95.

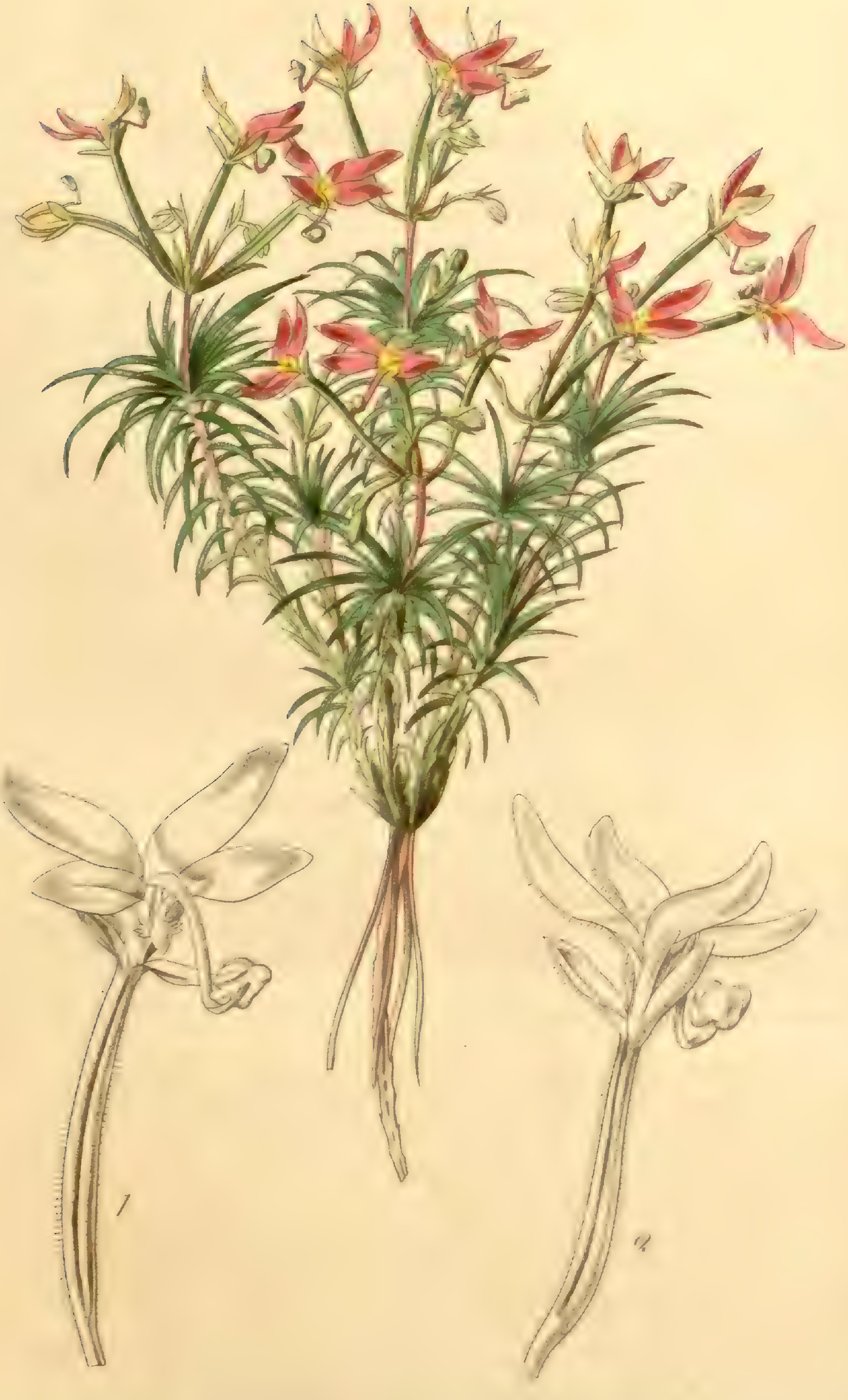
This graceful and curious plant is a native of Mexico and Guatemala, growing on mountains of considerable elevation, and was first made known to this country by G. U. SKINNER,

Skinner, Esq., who sent living plants to Mr. **Bateman.** Its drooping panicles of numerous rose-coloured flowers are exceedingly beautiful, and they are moreover fragrant.

Descr. *Pseudo-bulbs* ovate, oblong, compressed, smooth, clustered, partially sheathed at the base, green, bearing two linear-lanceolate, somewhat membranous *leaves* at the summit. From the base of the pseudo-bulb the *scape* arises, but soon becomes drooping, a foot or more long, including the panicle of graceful *flowers,* of a beautiful rose colour. *Sepals* spreading, linear-oblong, waved, as well as the petals, which are also spreading and oblong, but broader than the sepals. *Lip* deflexed, three-lobed, the side lobes spreading, acute, (between them is a yellow crest of five, crenate laminæ,) the middle lobe dilated, rounded, and emarginate at the point. *Column* short, white at the base, swollen and yellow below the concave *stigma,* above, on each side, furnished with a large, fan-shaped, crenate wing; *clinandrium* rostrate, and the hemispherical *anther-case* terminates in a long beak corresponding with it. *Pollen-masses* two, obovate, attached to a long, filiform, caudicle.

Fig. 1. Column. 2. Lip. 3. Pollen-mass:—*magnified.*

3913.



W Fitch del.

Pub. by S. Curtis Glazenwood Essex Dec.r 1 1841.

Swan Sc.

STYLÍDIUM RECÚRVUM. RECURVED STYLIDIUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—STYLIDIEÆ.)

Generic Character.

Calycis limbus bilabiatus. *Corolla* irregularis 5-fida, lacinia quinta (labello) dissimili minore sæpius deflexa, reliquis patentibus interdum geminatim cohærentibus. *Columna* genitalium reclinata duplici flexura. *Antheræ* bilobæ lobis divaricatissimis. *Stigma* obtusum indivisum. *Capsula* bilocularis septo superne interdum incompleto.—Herbæ *aut* suffruticuli. Folia *aut radicalia rosulata aut secus caulem sparsa, interdum basi attenuata.* Pili *sæpius apice glandulosi. D C.*

Specific Name and Character.

STYLIDIUM *recurvum;* caule ramoso, foliis apice ramorum confertis subulatis recurvis marginibus basin versus membranaceis, pedunculis confertis subcymosis subterminalibus, germine lineari. *Graham.*

I first saw this species in the nursery of Mr. CUNNINGHAM, Comely Bank, near Edinburgh, where it flowered in a frame in May, 1840. In the month following, we received it at the Botanic Garden, Edinburgh, from Mr. HENDERSON's nursery in the Edgeware-road, and at the same time from Mr. JACKSON, Nurseryman, Kingston, Surrey. It is indigenous to the neighbourhood of Swan River, Australia, and in the arrangement of the species should stand near STYLIDIUM *breviscapum.*

DESCR. *Stem* (in the specimens described six inches high) suffruticose, slender, much branched in tufts, and

there sending down long wiry roots, glabrous, red, almost incased in leaves. *Leaves* numerous all along the branches, but much crowded, and spreading in a stellate form at their apices, subulate, mucronulate, arched backwards, shining, somewhat rough, of deep green colour, with a membranous, colourless, ragged border on each side near the base. *Peduncles* crowded from the apex of the branches, pubescent, cymose. *Calyx* five-partite, unequal, persisting; *segments* elliptical, concave internally, pubescent on the outside. *Corolla* (nine lines across in the greatest diameter) five-cleft, in the unexpanded bud yellow on the outside, reddish-orange within; *tube* glabrous and shining, pale green, twisted; *limb* spreading, flat, salmon-coloured and glabrous in front, yellow in the throat, white and glanduloso-pubescent behind; *lip* recurved, small, ovate, of nearly uniform reddish-colour, turgid and shining, having at its base two erect teeth white or greenish and tipped with red: other segments of the limb elliptical, the pair most distant from the lip being the largest. *Column* flattened, green and twisted immediately above the germen, of an uniform brown tinge in front beyond the first flexure and green behind, beyond the second flexure (which forms a right angle) green both in front and behind, but edged with brown, and having a whorl of spreading, crystalline, moniliform, partly-coloured hairs at the apex. *Anthers* green, bursting along the front, and then reflexed in two parallel lines across the column of fructification; *pollen* abundant, *granules* small, greenish-white. *Stigma* rounded, villous. *Germen* linear, trigonous, equal at the apex, distinctly furrowed along two sides, more obscurely along the third, pubescent, the hairs as well as those on the peduncle, pedicels, and calyx, short, spreading, glandular. *Graham.*

Fig. 1. Front, and 2. side view of a Flower:—*magnified.*

3914.

W Fitch del.

Pub. by S. Curtis Glazenwood Essex Decr 1 1841

(3914)

OPÚNTIA DECÚMBENS. DECUMBENT OPUNTIA; or Prickly Fig.

* * *

Class and Order.

ICOSANDRIA MONOGYNIA.

(Nat. Ord.—CACTEÆ.)

Generic Character.

Sepala numerosa ovario adnata foliiformia, summa plana brevia, intima petaliformia obovata, expansa, tubo supra ovarium nullo. *Stamina* petalis breviora; filamentis tenuibus, tactu subirritabilibus. *Stylus* cylindricus, basi constrictus. *Stigmata* 3—8 erecta crassa. *Bacca* ovata apice umbilicata, tuberculosa, sæpius spinifera. *Embryo* subspiralis, teretiusculus. *Cotyledones* semiteretes, germinantes foliaceæ, planæ, crassæ. *Plumula* parva.—Frutices; *trunco ramisque cylindricis aut compresso-articulatis, articulis ovatis aut oblongis, fasciculos aculeorum aut setarum, ordine quincunciali seu spirali dispositis, gerentibus.* Folia *subulata sediformia, caducissima sub quoque fasciculo juniore.* Flores *e fasciculis aut marginibus articulorum orti, flavi, rubri aut albi.* Fructus *minuti vel magni, virides, flavi aut purpurei, sæpe ficiformes, edules, plerumque secundo vel tertio anno maturescentes. Pfeiff.*

Specific Character and Synonyms.

OPUNTIA *decumbens;* articulis decumbentibus compressis obovatis viridibus ad areolas saturatioribus, areolis confertis laniferis, aculeis biformibus, superioribus setaceis flavidis, inferioribus 1—2 validis albidis. *Pfeiff.*

OPUNTIA decumbens. "*Salm. Hort. Dyck. p.* 671." *Pfeiff. Enum. Cact. p.* 154.

OPUNTIA repens. "*Karw.*"

OPUNTIA irrorata. "*Mart.*"

This plant has been for some time an inhabitant of the Cactus-House in the Royal Botanic Garden of Kew, where

the flowering specimen was drawn in June, 1841. If we are correct in referring it to the O. *decumbens* of PFEIFFER (of which there cannot reasonably be a doubt), it is a native of Mexico; but that author puzzles us in saying, that the flowers are "rubri," whereas in our plant they are of a decided, and not deep, yellow colour. He further adds, that the articulations are in the German collections always unarmed, though he describes them, perhaps from the notes of KARWINSKI, as spinous. That author (KARWINSKI) speaks of the spots of the articuli as being red, whereas they truly are, (according also with PFEIFFER's statement,) of a deeper green than the rest of the articulation.

DESCR. Our *plant* is about two feet in length, disposed to be decumbent, of a lively green, the articulations obovate, thick, but much compressed, at and below the areolæ having a deep coloured, oblong spot: the *areolæ* composed of small pulvinate tufts, with one or two small spines often recurved, but at the base of the articulation is generally a solitary, acicular spine, about three-fourths of an inch long. *Flowers* three to four together. *Ovary* an inch or more long, green. *Petals* spreading, obovate, waved, yellow: *Stamens* and *stigma* also yellow.

3915.

W. Fitch del^t

Pub by S. Curtis Glazenwood Essex Dec^r 1.1841.

Swan Sc.

BORÓNIA CRENULÁTA. CRENULATED BORONIA.

****

Class and Order.

OCTANDRIA MONOGYNIA.

(Nat. Ord.—RUTACEÆ.)

Generic Character.

Calyx 4-fidus persistens. *Petala* 4, ovata persistentia. *Stamina* 8, rarius 4 sepalis opposita antherifera, 4 altera abortiva, filamentis ciliatis incurvis. *Styli* 4 erecti approximati aut inter se coaliti. *Carpella* 4 bivalvia introrsum connata in capsulam 4-lobam 4-loc. *Semina* in loc. subsolitaria ovata compressa. *Embryo* rectus in albumine carnoso, radicula infera.—Frutices *Novæ Hollandiæ.* Folia *opposita.* Pedunculi *axillares.* Flores *sæpius purpurascentes. D C.*

Specific Character and Synonyms.

BORONIA *crenulata ;* glabra, foliis obovatis crenulatis marginatis internodia superantibus basi cuneatis integerrimis, floribus solitariis, axillaribus, sepalis ovatis subacutis ciliatis, filamentis lanatis, alterius longioribus apice dentatis. *Graham.*

BORONIA crenulata. *Smith Trans. Soc. Linn.* 8. 284. *D C. Prodr.* 1. 721. *Sprengel, Syst. Veget.* 2. 215. *Lindl. Bot. Reg.* 1838, *tab.* 12.

This very pretty plant flowered in the greenhouse of the garden of the Caledonian Horticultural Society in September, having been communicated by Messrs. LODDIGES at Hackney. It had long been known as a native of King George's Sound ; but has only recently been received into cultivation in this country.

DESCR. *Shrub* (two feet six inches high in the specimen described) erect; *branches* slender, erect; *twigs* shortly

villous. *Leaves* (half an inch long, a quarter of an inch broad) numerous, evergreen, coriaceous, distichous, erect, presenting one edge outward, longer than the internodes, obovate, obscurely triplinerved, alike on both sides, dark green, having a cartilaginous, crenulated border. *Flowers* axillary, solitary, on *peduncles* which are much shorter than the leaves, and concealed by one or two pairs of small, opposite, sheathing, subacute, adpressed, green, imbricated, slightly ciliated scales. *Calyx* of four leaflets, similar to the scales of the peduncle, but larger and more obviously ciliated. *Petals* four, ovate, coriaceous, red, more than twice as long as the calyx. *Stamens* eight, alternately longer, all much shorter than the petals; *filaments* woolly, and the longer ones swollen upwards, and toothed on the back below the anthers; *anthers* ovate, bilocular, attached to the filament by the back, bursting longitudinally on the inner side. *Pistil* rather shorter than the stamens; *stigma* inconspicuous; *style* stout, erect, tapering, furrowed on four sides, green; *germen* green, ovate, four-lobed, four-celled; *ovules* two in each cell. *Graham.*

Fig. 1. Flower, from which the Petals are removed. 2. Petal. 3. Ovary and Disk. 4. 5. Stamens. 6. Leaf:—*magnified.*

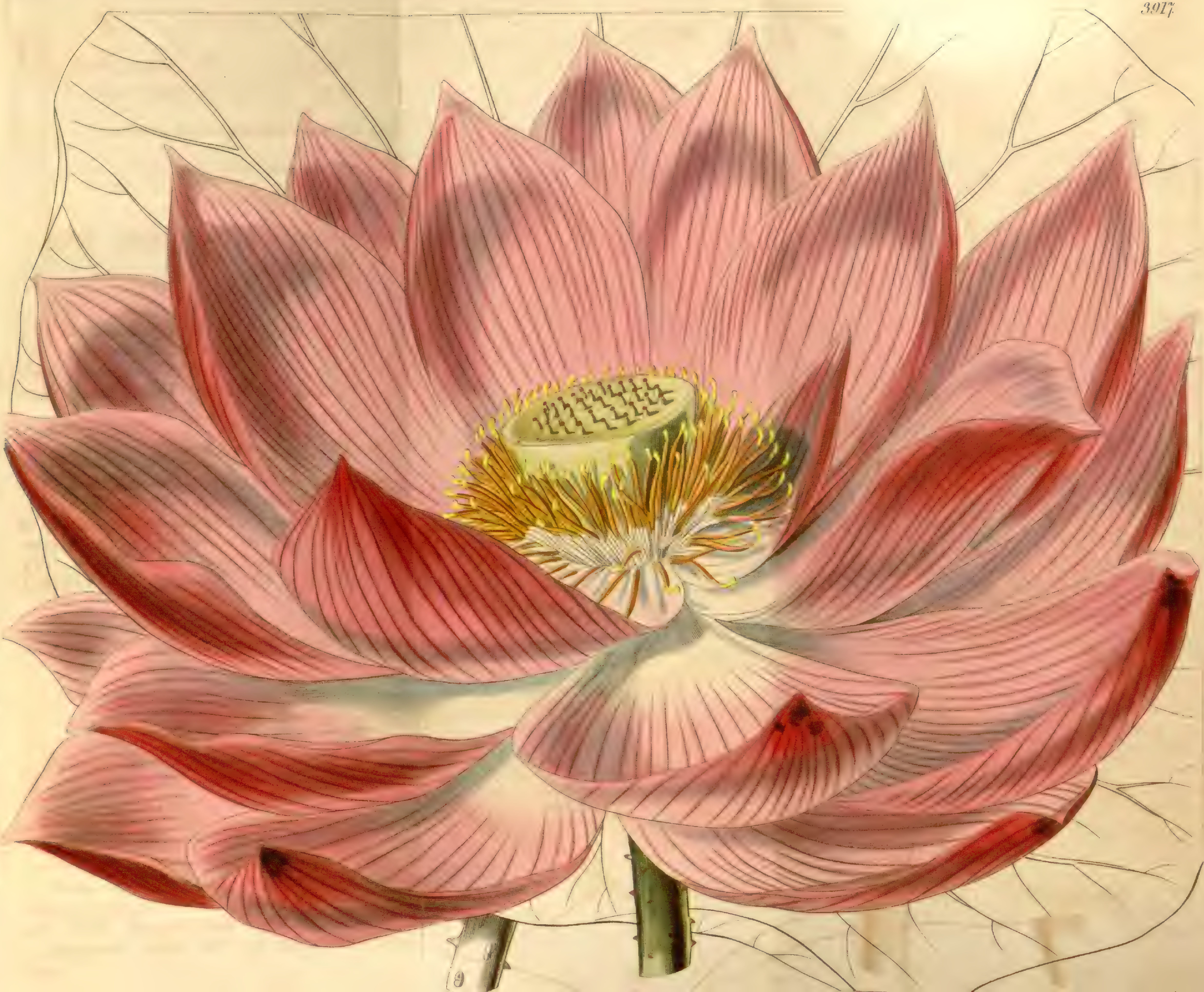
3916

W Fitch Del.

Pub. by Curtis Glazenwood Essex Jany 1. 1842

Swan Sc.

3917



(3916 3917)

NELÚMBIUM SPECIÓSUM. SACRED BEAN OF INDIA; deep rose-coloured *var.*

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Class and Order.

POLYANDRIA POLYGYNIA.

(Nat. Ord.—NYMPHÆACEÆ.—NELUMBIACEÆ. *Lindl. Torr.*, and *Gray.*.)

Generic Character.

Carpella plurima distincta 1—2-sperma monostyla toro elevato obconico superne profunde foveolato immersa. *Semina* in quoque carpello solitaria exarillata exalbuminosa. —Herbæ *Nymphæas omnino æmulantes.* Flores *ampli, rosei aut flavi.* *D C.*

Specific Character and Synonyms.

NELUMBIUM *speciosum;* corolla polypetala, antheris ultra loculos in appendicem clavatam productis. *D C.*

NELUMBIUM speciosum. (For the Synonyms and history of the plant see tab. 903 of this work: but to the Synonyms may be added) *De Cand. Prodr.* 1. *p.* 114. *Spreng. Syst. Veget.* 2. *p.* 634. *Wight, Ill. of Ind. Bot. vol.* 1. *p.* 27.

(β.) floribus intense roseis.—*(Tab. nostr.* 3916, 3917.*)*

(γ.) floribus albis. *Wight, Ill. of Ind. Bot. vol.* 1. *p.* 27. *tab.* 9.

Were not this an acknowledged variety of the well known NELUMBIUM *speciosum* of Eastern India, already figured at tab. 903 of this work, chiefly, indeed, depending on the deeper colour of the blossom, it would still be deserving of another representation;—for, assuredly, that already given affords no adequate idea of the size and beauty of this truly magnificent flower. The opportunity of making this delineation was kindly granted us at Syon Gardens, so eminently rich in the vegetable products of the East Indies. There this plant flowered in great perfection during the months of July and August, 1841, and the blossoms were succeeded by fruit which promised to come to maturity. The luxuriance and the free blossoming of this specimen were attributed by the very skilful gardener to the water in the cistern being frequently changed, while the cistern itself was placed in a damp stove, suited to Palms and Orchideous epiphytes. In this situation, the petioles rose to the height of four and five feet, crowned with their ample foliage, and the peduncles to the height of six feet, terminated by their equally ample blossoms.

The colour of the petals is usually a pale (but not dingy, as represented in our tab. 903) rose colour. Here the hue was much richer and deeper. Sometimes the flowers are white, as exhibited in Dr. WIGHT's "Illustrations of Indian Botany;" and not seldom, as shown in Chinese drawings and on porcelain from that country, are they white, tipped and streaked with rose colour.

On our visiting Syon Gardens a second time, in company with Baron HUGEL, when the fruit had almost come to maturity, that distinguished Botanist and Traveller observed that, in that state, the nuts are generally eaten in Hindostan at the dessert, and have an agreeable flavor, not unlike that of Filberts. Dr. WIGHT also remarks that, both in the East Indies and in China, the creeping root-like stems and nuts are used as food. The leaf and flower-stalks, too, he tells us, abound in spiral tubes, more loosely combined and perhaps stronger than the same vessels in most other vascular plants. These, in the southern provinces of India, are extracted with great care, by gently breaking the stems and slowly drawing apart the ends. Long pieces of the spiral filament are thus uncoiled. From these filaments are prepared those wicks, which, on great and solemn religious occasions, are burnt in the lamps of the Hindoos, and placed before the shrines of their gods. Similar wicks are formed of the spiral tubes of some of the NYMPHÆAS, but are not thought so sacred.

Of the N. *speciosum,* DE CANDOLLE makes two varieties:—β. *Tamara;* staminibus exterioribus sterilibus apice dilatatis alatis obcordatis, appendice ex emarginatura orta; a native of Malabar;—and δ. *Caspicum;* petalis interioribus vix externis minoribus obtusis, the N. *Caspicum* of FISCH. MSS., and a native of the embouchures of the Volga, near Astrachan. Judging from this character, as well as from specimens in the Herbarium, received from Dr. FISCHER, this latter does not seem to be different from the plant here figured.

For an accurate description and classical history of this plant, we refer, with great satisfaction, to the description accompanying the figure at tab. 903 of this work. Of its close affinity with NELUMBIUM *luteum,* (Bot. Mag. tab. 2753,) we have already spoken, in describing that plant: I may further add, after a careful examination of the two species, that the anthers of N. *speciosum* are terminated by an appendage very little different from that of N. *luteum;* and that, except in the colour of the blossoms, and the more muricated petioles and peduncles of N. *speciosum,* the two can scarcely be distinguished by any tangible marks.

TAB. 3916. Very reduced drawing of the Plant. Tab. 3917. Flower and portion of a small Leaf: *nat. size.*

3918.

W. Fitch del.

Pub. by S. Curtis Glazenwood Essex Jan.1. 1842

STUÁRTIA PENTÁGYNA. FIVE-STYLED STUARTIA.

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Class and Order.

MONADELPHIA POLYANDRIA.

(Nat. Ord.—TERNSTRŒMIACEÆ.)

Generic Character.

Sepala 5, magis minusve ad basin unita, 1-bibracteata. *Petala* 5—6 ad basin unita. *Staminum* tubus brevissimus cum basin petalorum adnatus. *Styli* 5, filiformes, liberi, vel in unum coaliti. *Capsula* subliguosa, 5-locularis, 5-valvis. *Semina* 2 in quoque loculo, submarginata.—Frutices *Americæ septentrionalis præcipue in regionibus Australibus.* Folia *ovata membranacea decidua.* Flores *magni solitarii axillares sessiles ochroleuci.*

Specific Character and Synonyms.

STUARTIA* *pentagyna;* foliis ovatis acuminatis grosse serratis, sepalis lanceolatis, petalorum marginibus undulato-crenatis, stylis 5 liberis, capsulis pentagonis.

STUARTIA pentagyna. *L'Hérit. Stirp. t.* 74. *Willd. Sp. Pl. v.* 3. *p.* 840. *Smith, Ex. Flora, t.* 101. *Pursh, Fl. Am. v.* 2. *p.* 452. *Elliott, Carol.* 2. *p.* 173. *Torr. et Gray, Am. v.* 1. *p.* 224.

MALACHODENDRON ovatum. *Cav. Diss.* 5. *t.* 158. *Mich. Am. v.* 2. *p.* 43. *De Cand. Prodr. v.* 1. *p.* 528. *Lindl. Bot. Reg. t.* 1104. *Spreng. Syst. Veg.* 3. *p.* 126.

We are glad to find our friends Drs. TORREY and GRAY agree with Sir JAMES SMITH in uniting the Genus MALACHO-

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* So named in honor of JOHN STUART, Marquis of Bute, a great patron of Botany in his day.

DENDRON with STUARTIA, for nothing can be more evident, as the latter author remarks, than that these two plants must form one natural Genus. Indeed, he continues, their several varieties so closely approach each other, that the greatest practical Botanists have been in the habit of confounding them as one species. This species, an inhabitant of the mountains of Carolina and Georgia, seems to have been among us first cultivated at Kew, long before 1785, when Sir JAMES SMITH received the specimens which he figured in the " Exotic Flora." Our specimens are derived from the same source. The bushes have a truly beautiful appearance, with their large, cream-coloured blossoms resembling those of a fine single white Rose, or even more like those of a MESPILUS, the outside tinged with bright red. It flowers in July and August, and seems quite hardy : yet it is not common in gardens.

DESCR. A *shrub*, eight to ten feet high, much branched; the young *branches, petioles,* and often the foliage, deeply tinged with red. *Leaves* alternate, on red petioles, which are three-fourths of an inch long, ovate, acuminate, strongly veined, and generally deeply serrated with sharp teeth, the margin often red. *Flowers* axillary, solitary, large. *Calyx* of five deep, oblongo-lanceolate segments, stained with bright red. *Petals* six in our specimens, one generally rather smaller than the rest, and deeply stained with red on the back, all of them rounded, very concave, much waved, and crenulated at the margin, united at the base by means, as it were, of the short, *staminal tube;* this tube separates into a great number of *filaments*. *Anthers* rounded, orange. *Germen* ovate, hairy, five-angled, and terminating in five *styles,* shorter than the *stamens*.

Fig. 1. Portion of the Staminal Tube, with the base of a Petal. 2. Pistil :—*magnified.*

3919.

W. Fitch del.
Pub. by S. Curtis Glazenwood Essex Jan. 1 1842
Swan Sc.

AQUILÉGIA SKINNÉRI. MR. SKINNER'S COLUMBINE.

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Class and Order.

POLYANDRIA PENTAGYNIA.

(Nat. Ord.—RANUNCULACEÆ.)

Generic Character.

Calyx 5-sepalus, deciduus, colorato-petaloideus; petala 5 superne hiantia bilabiata, labio exteriore magno plano, interiore minimo, deorsum producta in calcaria totidem cava apice callosa inter sepala exserta. *Ovaria* 5. *Capsulæ* totidem erectæ ∞-spermæ stylis acuminatæ. *D C.*

Specific Name and Character.

AQUILEGIA *Mexicana;* glabra, calcaribus patenti-rectis longissimis limbo quintuplo longioribus, sepalis lanceolatis petalorum limbo duplo longioribus, staminibus longissime exsertis stylos 3—5 excedentibus.

This, the finest of the Genus AQUILEGIA yet known to us, (if we except, perhaps, the A. *cærulea* of TORREY,—A. *macrantha*, HOOK. et ARN., Bot. of Beech. Voy. t. 82.,)—was sent to Woburn Abbey, by G. U. SKINNER, Esq., from Guatemala; a country much to the South of any which had been previously supposed to produce a species of *Columbine.* North America reckons four species, A. *Canadensis,* L.,—A. *formosa,* FISCHER,—A. *cærulea,* TORR.,—and A. *brevistyla,* HOOKER. All these are northern plants, or at least not known in the extreme South of the United States, nor further South on the Pacific side than Monterey in California.

A. *Skinneri* proves to be perfectly hardy, having survived the severe winter of 1840-41 in the open ground at Woburn, and flowering in great beauty during the summer and autumn of 1841. Its nearest affinity is with A. *Canadensis* (Bot. Mag. tab. 246.)

Descr. *Root* perennial. *Leaves* mostly radical, glaucous, on long *petioles,* biternate; the *leaflets* petiolulate and cordate, deeply three-lobed, the lobes variously incised, the teeth or segments blunt and rounded. *Stem* two to three feet high, panicled above, and bracteated; *bracteas* linear-subulate, leafy. *Pedicels* curved, so that the flowers are drooping. *Sepals* ovato-lanceolate, acuminate, keeled, green, erect with regard to the axis, more than twice as long as the limb of the petals. *Petals* with the limb yellow-green and rounded, prolonged at the base into a very long, nearly straight, hollow, tubular, lively red *spur,* compressed, but gradually attenuated into a slight, curved, clubbed extremity. The great length of this spur, nearly two inches, essentially characterizes the species. *Stamens* numerous, much protruded, so that the base of the calyx is near the centre of the flower. *Germen* with broad, membranous, crisped wings. *Styles* 3.—After flowering, the young fruit-bearing flower-stalks become erect.

Fig. 1. Petal; seen from within; *nat. size.* 2. Pistils;—*magnified.*

3920.

W Fitch Delt

Pub by S. Curtis, Glazenwood, Essex Janʸ 1 1842

Swan Sc.

(3920)

PODOTHÉCA GNAPHALIOÍDES. CUDWEED PODOTHECA.

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Class and Order.

SYNGENESIA ÆQUALIS.

(Nat. Ord.—COMPOSITÆ.)

Generic Character.

Capitulum multiflorum homogamum. *Receptaculum* ebracteolatum. *Involucrum* floribus æquale cylindraceum, squamis subimbricatis lineari-acuminatis subfoliaceis. *Corollæ* graciles, tubulosæ, 5-dentatæ. *Antheræ* basi setiferæ. *Stigmata* longa apice obtusa appendice acuta forte aucta *(Cass.)*. *Achenium* subcylindricum hispidum, areola laterali, stipite gracili e centro alveolorum orto insidens. *Pappus* paleis 5 longissimis 1-seriatis basi concretis longe plumosis.—Herba *Novæ Hollandiæ, glabra, annua.* Folia *alterna amplexicaulia lineari-semilanceolata integerrima acuminata.* Capitula *ad apices ramorum aphyllorum solitaria.* Flores *flavescentes.* Invol. *subaraneosum.*

Specific Name and Character.

PODOTHECA * *gnaphalioides;* foliis lanceolato-linearibus, involucro imbricato conico corollis breviori, squamis inæqualibus exterioribus ovato-lanceolatis herbaceis extrorsum glanduloso-pubescentibus introrsum lanatis, interioribus linearibus scariosis. *Graham.*

This very distinct species was raised at the nursery garden of Messrs. JAMES DICKSON & SONS, Edinburgh, in spring, 1841,

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* Name derived from πȣς, ποδος, a *foot*, and ϑηκα, *a fruit* or *capsule*, in allusion to the stalk of the fruit.

1841, from a collection of Swan River seeds, communicated the year before by Mr. MURRAY, Lintrose. It flowered abundantly in July and August, but ripened no seed. It has, however, been struck from cuttings by Mr. KELLY, the intelligent superintendant of Messrs. DICKSON's establishment.

DESCR. Annual. *Stem* much branched at the base; *branches* generally subdivided at the top, glanduloso-pubescent, enlarged like an obverse, hollow cone under the capitula. *Leaves* scattered, lanceolato-linear, smaller upwards, glanduloso-pubescent on both sides, three-nerved, the middle rib strong, the edges reflexed. *Capitula* solitary, terminal. *Involucre* (an inch and a half long) conical; *scales* adpressed, imbricated; the outer ones herbaceous, ovato-lanceolate, acute, glanduloso-pubescent on the outside, woolly within; the inner ones linear, coriaceous, glabrous, except at the apex where they are woolly, and where some of them are herbaceous and lanceolate. *Receptacle* convex, tubercled, without hairs or chaff. *Flowers* yellow, longer than the involucre, and forming upon its apex a spheroidal head. *Corolla* tubular, glabrous; *tube* very slender, dilated at the apex; *limb* five-partite, spreading, *segments* ovate, blunt. *Stamens* included, inserted below the dilated portion of the tube; *anthers* with some soft, waved hairs at their base, and ovate, subacute, free appendages at their apex. *Germen* white, oblong, hairy, with an oblique, oblong pit at the base, from the centre of which is protruded a slender but short and firm thread, by which it is attached to the outside of the base of the corresponding conical tubercle on the receptacle. *Style* exserted, bifid; its segments revolute. *Stigmas* blunt. *Pappus* of five scales, united at the base, much attenuated, nearly as long as the tube of the corolla, plumose. *Graham.*

3921.

Fitch del.

Pub by S. Curtis Glazenwood Essex Jan.y 1.1842

(3921)

OTOCHÍLUS FÚSCA. BROWNISH-FLOWERED OTOCHILUS.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala et *petala* æqualia, libera, patentia. *Labellum* trilobum, lobis lateralibus auriformibus basin columnæ amplectantibus, intermedio patente elongato sepalis conformi, cristis nullis. *Columna* elongata, clavata, semiteres. *Anthera* terminalis, bilocularis, septo medio bipartibili, et hinc bivalvis, valvis anticis et posticis medio septiferis. *Pollinia* 4, incumbentia, $\left(\begin{smallmatrix}\circ\circ\\ \circ\circ\end{smallmatrix}\right)$ ad basin materie granulosa cohærentia.—Herbæ *supra arbores repentes rhizomate destitutæ, sed pseudo-bulbis semper e latere apicis suæ soboliferis.* Racemi *multiflori e latere pseudo-bulborum, basi vaginati.* Stigma *labio superiore ovato producto. Lindl.*

Specific Character and Synonyms.

OTOCHILUS* *fusca;* pseudo-bulbis elongatis fusiformibus, foliis lineari-lanceolatis, sepalis petalisque obtusis. *Lindl.*

OTOCHILUS fusca. *Lindl. in Wall. Cat. n.* 1967. *Gen. et Sp. Orchid. p.* 35.

BROUGHTONIA? amæna. *Wall. in Ic. Bibl. Anglo-Indicæ. n.* 642.

A very singular, but by no means showy, epiphyte; an inhabitant of the trunks of trees in Nepal, and by Dr.

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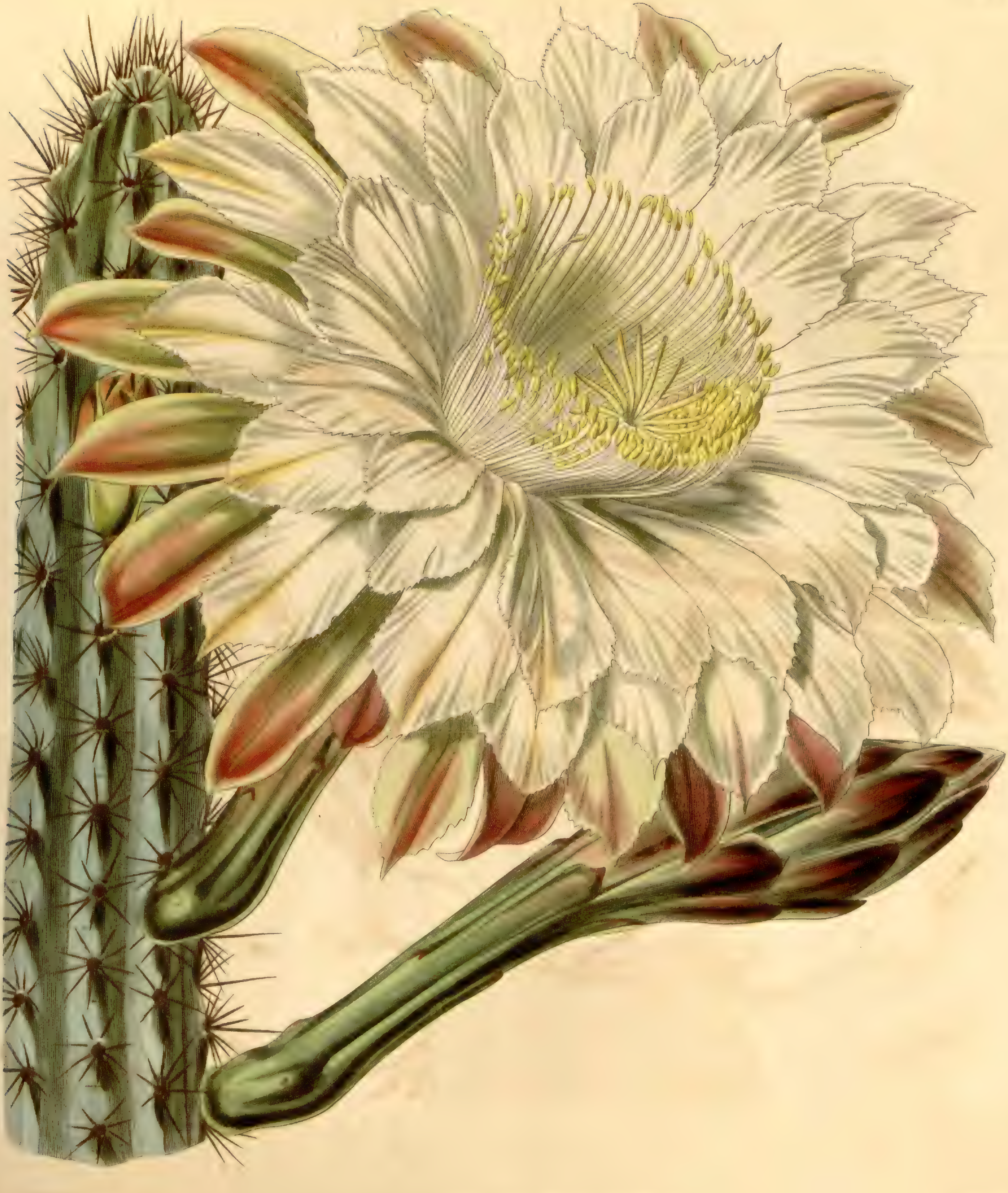
* Name derived from ȣς, ωτος, an *ear,* and χειλος, a *lip;* in allusion to the little ear-like appendages at the base of the Lip.

Wallich introduced to the stoves of this country. Our plant flowered at the Glasgow Botanic Garden, February, 1841.

Descr. *Pseudo-bulbs* elongated, compressed and somewhat fusiform, proliferous, and thus creeping, as it were, by means of fibres from the joints, and these are frequently clothed at the base with large, brown, sheathing scales. The upper or younger pseudo-bulbs are terminated by two linear-lanceolate, more or less recurved, very acute or almost acuminated *leaves*. From the extremity of a series of young pseudo-bulbs, tipped with two young *leaves*, the almost sessile *spike*, or *raceme*, originates. This is pendent and has many small pale-coloured *flowers;* each subtended by a rather large, linear, concave *bractea*. *Sepals* spreading, linear, white, or with a faint tinge of flesh-colour. *Petals* similar to them, but narrower. *Lip* three-lobed, the base very concave, with a small lobe, or tooth, on each side; the middle one long, deflexed, linear, acute, white, resembling the petals or sepals, contracted at the base. *Column* brown, elongated, nearly terete, but a little thickened and curved upwards. *Anther-case* placed in front of this, a little below the apex, hemispherical. *Pollen-masses* four, united by a granulose substance.

Fig. 1. Flower, (from which the Sepals are removed,) with the Bractea. 2. Pollen-masses, anterior and posterior view:—*magnified.*

3922.



W. Fitch del.

Pub. by S. Curtis Glazenwood Essex Feby 1. 1842

Swan Sc.

CÉREUS CÆRULÉSCENS. BLUE-STEMMED CEREUS.

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Class and Order.

ICOSANDRIA MONOGYNIA.

(Nat. Ord.—CACTEÆ.)

Generic Character.

Sepala numerosissima imbricata, basi ovario adnata, in tubum elongatum concreta, exteriora breviora calicinalia, media longiora colorata, intima petaliformia. *Stamina* numerosissima cum tubo concreta. *Stylus* filiformis, apice multifidus. *Bacca* areolata, sepalorum reliquis squamata aut tuberculosa. *Cotyledones* acuminatæ.—Frutices *carnosi, subglobosi vel elongati, stricti, articulati vel repentes, axi ligneo interne medullifero donati, angulis verticalibus, spinarum fasciculos gerentibus vel inermibus, regulariter sulcati.* Anguli *seu alæ nunc plurimæ, nunc paucissimæ, rarius duæ tantum, et tunc rami compresso-alati inermes.* Flores *ampli e spinarum fasciculis lateralibus trunci aut ramorum vetustiorum, aut crenis angulorum orti.* Fructus *oviformes, plerumque anno sequente maturescentes, edules. Pfeiff.*

Specific Character and Synonyms.

CEREUS *cærulescens;* erectus apice attenuatus cærulescens 8-angularis, costis obtusis crenatis, areolis approximatis, aculeis acicularibus e tomento nigro bicoloribus albis aut nigris, exterioribus sub-12 radiantibus, centralibus 3—4, summo sæpe validiore, alabastro clavato, flore amplissimo, petalis undulato-dentatis.

CEREUS cærulescens. " *Hort. Dyck. p.* 335." *Pfeiff. Enum. Cact. p.* 85.

CEREUS Œthiops. " *Haw. Phil. Mag.* 1830, *p.* 109 ?"

In July, 1841, the specimen of this CEREUS, about four feet in height and nearly three inches in the thickest dia-

meter of its unbranched stem, produced its truly splendid flowers, which do not appear to have been known to any author. In point of magnitude and delicacy of structure, the blossoms are equal and even superior to those of the far-famed C. *grandiflorus*.

When we look at the strange forms of the stems of many of this curious tribe of plants, and the grandeur and beauty, whether of form or colour, of the blossoms of others, we cannot wonder that this family should become favourites with the cultivators of the present day; when, thanks to our extended commercial intercourse with South America, every year, I might almost say, every month, brings to light new forms among this singular race. Perhaps no limited portion of the New World can exhibit to the eye such assemblages of CACTEÆ as are now to be met with in many collections in England and upon the continent. It has been, we cannot doubt correctly, said, that Great Britain, at this time, possesses more *Cedars of Lebanon* than Mount Lebanon itself can exhibit; so with equal justice we believe may this country boast the possession of more CACTEÆ than fall to the lot of any single empire or republic in all the Western World, which portion of our globe alone is known to yield native species. That vast continent has supplied our gardens, from the temperate parts in North America to the southern extremity of Chiloe. France and Holland and the Royal Garden of Berlin, are known to cultivate these plants on an extensive scale: but it would be strange if our vast commercial intercourse did not place our own collections at the head of the list; and we believe that it may with truth be asserted, that the garden at Woburn Abbey possesses the finest general collection of CACTEÆ, in point of number and size of the specimens; while that of the Rev. Mr. WILLIAMS at Hendon is unrivalled for MELOCACTI and ECHINOCACTI; and that of Mr. LAMBERT, of Boyton House, Wiltshire, will bear the palm in CEREI and OPUNTIÆ. This collection, which, be it observed, is one of the first that was formed on an extensive scale in this country, Mr. LAMBERT has recently presented to the Royal Botanic Garden of Kew; thus conferring a national benefit on the country, and (united as it is with a very rich collection already possessed by the Royal Gardens) at the same time elevating our CACTUS collection to the first rank among those of Europe.

DESCR. Our plant of CEREUS *cærulescens* exhibits an unbranched *stem* of about four feet in height, of a singularly

larly blue or glaucous colour, with about eight deep furrows, the ridges prominent, obtuse, notched; the *areoles* rather close, bearing dense tufts of dark-coloured down, and from ten to twelve spreading, black, or black and white, acicular or subulate, strong *aculei*, and two or three central ones, of which one is longer and stronger than the rest. *Flowers* of very large size spring from an areole of the ridges. *Bud* clavate, seven to eight inches long, glabrous, clothed with olive or reddish-green scales, which pass upwards into sepals. *Petals* spreading, white, spathulate, acute, their margins crisped and serrated. *Stamens* exserted, forming a circle around the *style* and the long, many- (about twelve) rayed *stigma*.

Since the above was written, and indeed while the proof sheet is still in type, science has had to deplore the loss of this distinguished and venerable Botanist. Feeling his end approaching, Mr. LAMBERT expressed the most earnest desire to be removed from his town residence in Grosvenor Street to Kew, where he had, in a declining state of health, passed the previous summer and autumn, that he might be near that Botanic Garden, in the prosperity of which he had always taken (as proved by the above-mentioned munificent donation) such a lively interest, and where he was sure of meeting with the attentions which his condition required, at the hands of a few devoted friends. In that retired Hamlet, and under the roof of a most kind and devotedly attentive family, he breathed his last, without any apparent suffering. The writer of this brief notice, who had been honored with his friendship, and encouraged in the pursuit of Botany by his notice, for a period of thirty years, had the mournful satisfaction of witnessing his departure, on the 10th of January, 1842, in the eighty-first year of his age. An abler pen, it is hoped, will record the valuable services which Mr. LAMBERT rendered to science for a protracted series of years, during which he amassed one of the most valuable botanical libraries and richest Herbaria that has ever been formed by any private individual.

W Fitch del.
Pub by S Curtis Glazenwood Essex Feby 1 1842.
Swan Sc

MYÁNTHUS DELTOIDÉUS. TRIANGULAR-LIPPED FLY-WORT.

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Class and Order.

GYNANDRIA MONOGYNIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium explanatum. *Sepala* libera, æqualia, lateralibus paululum ascendentibus. *Petala* conformia angustiora, sepalo supremo supposita. *Labellum* planum, obovatum, 3-dentatum sepalis brevius. *Columna* erecta, teres, basi bicirrhosa, postice ad cardinem antheræ longe producta. *Anthera* et *pollinia* Cataseti.—Epiphyta, *Cataseti omnino vegetatione. Lindl.*

Specific Character and Synonyms.

MYANTHUS *deltoideus;* labello imberbi sagittato triangulari angulis posticis rotundatis dentatis apice dilatato calloso margine recurvo basi tuberculato. *Lindl.*

MYANTHUS deltoideus. *Lindl. Bot. Reg. t.* 1896.

A native of British Guiana, and first cultivated, it would appear, by RICHARD HARRISON, Esq., of Liverpool. I am indebted for the specimen here represented to CHARLES HORSFALL, Esq., of that town. It is a most distinct species of the Genus, or subgenus, as it is, perhaps, with more propriety, to be considered, of CATASETUM. The lip has a very remarkable structure.

DESCR. *Pseudo-bulbs* clustered, ovato-oblong, furrowed, the old ones naked, the younger ones clothed with the striated, sheathing bases of the leaves. *Leaves* four to five, oblong, membranous, striated, attenuated at the base, acute at the point. *Scape* from the base of the pseudo-bulb and from within the sheath of the lowest leaf, a foot or more high, zigzag among the flowers. *Sepals* spreading, narrow-lanceolate, green, spotted with purple. *Petals* erect, lying within the upper sepal, of the same shape as the sepals, but paler, yellower green, and with more distinct spots. *Lip* shorter than the *sepals* and *petals*, triangular, deflexed, cordate at the base, and deeply saccate in the disk, the apex toothed, with the middle tooth cuspidate. The colour is yellow-green, spotted with purple: the base purple with darker transverse streaks. *Column* acuminated, at the base furnished with two *cirrhi*, as is the *anther-case*. *Pollen-masses* as in the Genus.

Fig. 1. Flower, from which the Sepals are removed. 2. Pollen-masses: —*magnified.*

3924

Fitch del.

Pub. by S. Curtis Glazenwood Essex Feby 1. 1842

Swan Sc.

MÍMULUS RÓSEUS; (hybridus) *var.* Maclainianus. MR. MACLAIN'S hybrid *var.* of the ROSE-COLOURED MONKEY-FLOWER.

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Class and Order, &c.—(See Tab. 3353.)

Beautiful as are the now well known species of MIMULUS from California, M. *roseus* and M. *cardinalis*, this, we think, exceeds them both in the size and rich colouring of the flower; and we cannot doubt but when it shall be in more general cultivation, it will become a great favourite. We have seen it growing at the Horticultural Society, but our fine flowering specimen was received in June, 1841, from Mr. FERGUSON, the Curator of the Belfast Botanic Garden, under the name of M. *Maclainii;* Mr. MACLAIN, Florist, Harold's Cross, near Dublin, having reared it by crossing, as we believe, M. *roseus* with some other species.

Mr. MACLAIN has bestowed much pains on producing new varieties of several highly ornamental Genera of plants, and, in the present instance, has proved very successful. He informs us, that this plant succeeds best when grown in rich light compost, a pan of water being placed under the pot, and kept in the bark stove. The flowers do not bear much exposure to the sun. Mr. MACLAIN'S collection is rich in seedling hybrids of CALCEOLARIA, PETUNIA, VERBENA, and PELARGONIUM.

Fig. 1. Corolla laid open. 2. 3. Stamens. 4. Calyx including the Pistil:—*magnified.*

3925.

W. Fitch del.

Pub by S. Curtis, Glazenwood, Essex Feb. 1 1842.

Swan sc.

(3925)

DIGITÁLIS LÚTEA, δ. fucáta. SMALL YELLOW FOX-GLOVE; purplish-flowered *var.*

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—SCROPHULARINEÆ.)

Generic Character.

Calyx 5-partitus, laciniis subinæqualibus. *Corolla* campanulata, limbo 4-fido. *Stamina* declinata. *Anthera* 2-partitæ. *Capsula* acuminata, valvis introflexis dissepimentum formantibus. *Spreng.*

Specific Character and Synonyms.

DIGITALIS* *lutea;* foliis lanceolatis dentatis glabris, racemo secundo, corolla glabra, laciniis ovatis barbatis, lacinia superiore bifida, bracteis inferioribus flore longioribus.

DIGITALIS lutea. *Linn. Sp. Pl.* 867. *Jacq. Vindob.* 2. *p.* 47. *t.* 105. *Willd. Sp. Pl.* 7. *p.* 285. *Ker, Bot. Reg. t.* 251. *Reich. Ic. Bot. t.* 151. *Spreng. Syst. Veget.* 2. *p.* 789. *Br. in Hort. Kew. ed.* 2. *v.* 4. *p.* 29. *Lindl. Digit. p.* 23. *tab.* 23.

DIGITALIS parviflora. *All. Ped.* 1. *p.* 70. *De Cand. Fl. Fr.* 3. *p.* 597.

(β.) *micrantha;* sepalis corollæ subæqualibus. *Lindl. l. c. p.* 23.

D. micrantha. " *Elm. Mon.* 46. *t.* 2."

(γ.) *hybrida,* floribus majoribus pallidis, caule erectiore. *Lindl. l. c. p.* 23. *tab.* 24.

D. hybrida. " *Salv. Nuov. Bull.* 3. 337. *tab.* 6."

D. purpurascens, β, δ. *De Cand. Fl. Fr.* 5. *p.* 411.

(δ.)

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* From *digitale, a thimble,* which the flowers of the common species somewhat resemble.

(δ.) *fucata;* floribus majoribus fusco- (vel potius viridi-) purpureis, caule erectiore. *Lindl. l. c. p.* 23. *tab.* 25. —Tab. nostr. 3925.
D. fucata. " *Ehr. Beitr.* 7. 151."
D. purpurascens, γ. *De Cand. Fl. Fr.* 5. *p.* 411.

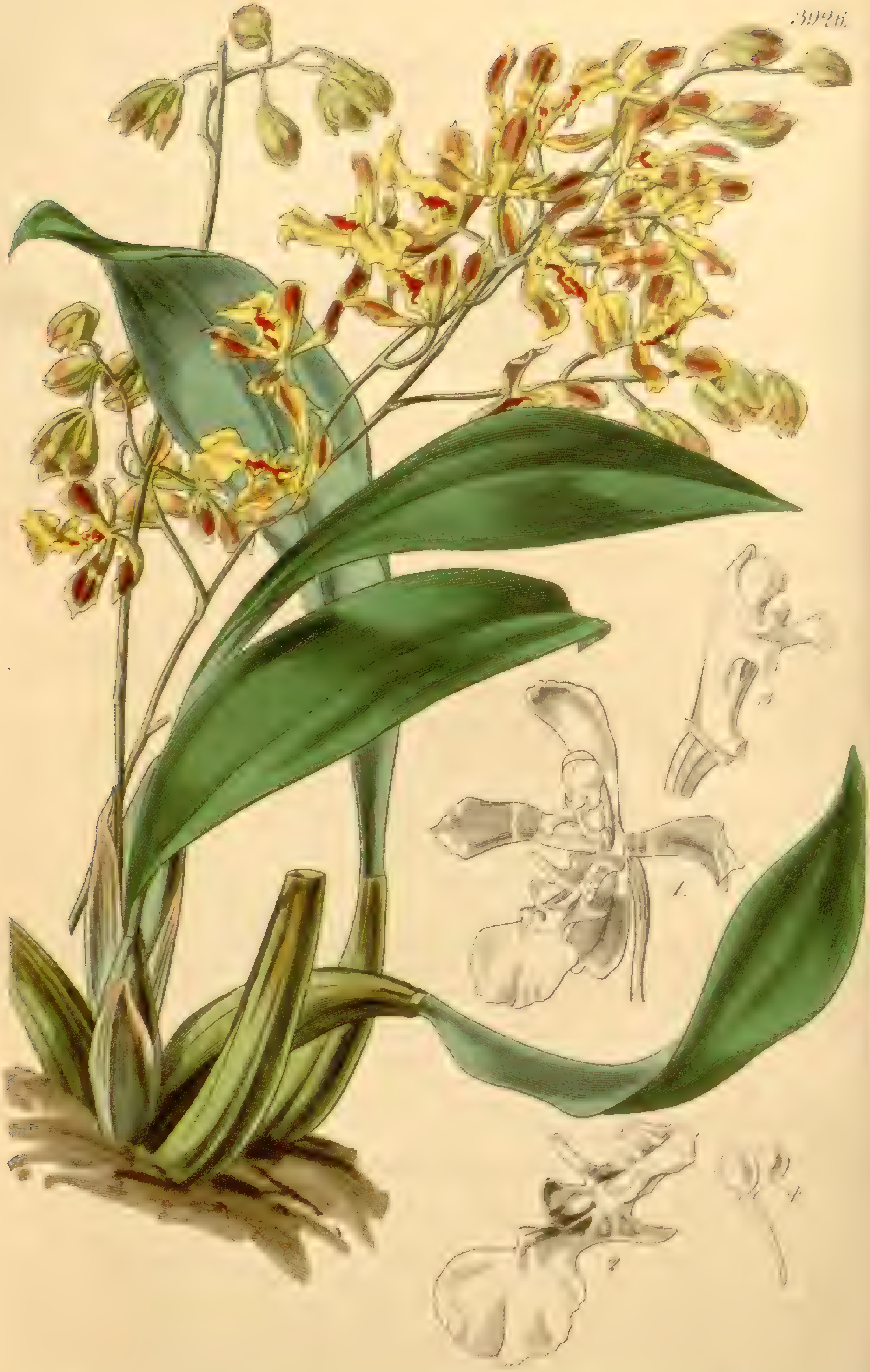
That the DIGITALIS *lutea* is a very sportive plant is clear to every one who has been in the habit of observing it in the South of Europe, and that, in gardens, all the individuals of the Genus are apt to hybridize, is equally certain; so that Dr. LINDLEY has probably not erred in referring the fine plant of which we here give a figure, taken from the Royal Botanic Garden of Kew, to that species. Whether the D. *purpurascens* of ROTH (LINDL. Digit. tab. 20) be distinct from *lutea*, may also admit of doubt. The present variety seems to differ from it only in the notched (not entire) upper lip or segment of the corolla.

The present plant is really a great ornament to our parterres, reaching a height of four or five feet, and bearing a succession of flowers for many weeks during the summer months.

DESCR. *Stem* erect, simple below, but when luxuriant, among the flowers throwing out many erect, floriferous branches. *Root-leaves* spathulate, the rest oblong- or ovato-lanceolate, sessile and even cordate at the base, serrated, strongly veined. *Racemes* very long, of many secund *flowers,* subtended by lanceolate, acuminated *bracteas,* which below are almost as long as the flowers themselves. *Pedicels* short. *Sepals* ovato-oblong, acute. *Corolla* dingy yellow-green, tinged with blush above; the *tube* swollen all round at the base, and inflated below towards the apex; *laciniæ* four, rather obtuse, the upper one notched or bidentate, the mouth is beset with long, delicate hairs. *Stamens* included. *Anthers* spotted with red.

Fig. 1. Corolla laid open:—*magnified.*

3926.



W. Fitch Del.

[illegible] Feb.y 1 [illegible]

ONCÍDIUM PÚBES; *var.* flavescens. DOWNY-COLUMNED ONCIDIUM; yellow-flowered *var.*

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium explanatum. *Sepala* sæpius undulata: lateralibus nunc sub labello connatis. *Petala* conformia. *Labellum* maximum, ecalcaratum, cum columna continuum, variè lobatum, basi tuberculatum v. cristatum. *Columna* libera, semiteres, apice utrinque alata. *Anthera* semibilocularis, rostello nunc abbreviato, nunc elongato rostrato. *Pollinia* 2, posticè sulcata, caudiculâ planâ, glandulâ oblongâ.—Herbæ *epiphytæ, nunc pseudo-bulbosæ.* Folia *coriacea.* Scapi *paniculati, vaginati, rariùs simplices.* Flores *speciosi, lutei, sæpius maculati, raró albi.*

Specific Character and Synonym.

ONCIDIUM *pubes;* bulbis subcylindricis monophyllis, foliis lanceolatis nervosis, panicula simplici multiflora subsecunda, sepalis 4 fasciatis, inferiore breviore bidentato, labello pandurato lobis lateralibus angustissimis, crista superne bicorni, columnæ alis linearibus obtusis, apice antheraque bicorni pubescentibus.

ONCIDIUM pubes. *Lindl. Bot. Reg. t.* 1007.

Different as the flowers of this plant appear at first sight from those of ONCIDIUM *pubes* as figured in the Botanical Register, they exhibit the same form and structure. The dissimilarity exists only in colour; and I have the authority of Dr. LINDLEY himself for considering it specifically the same. The original species has the sepals of a much greener tinge, and the middle lobe of the *lip* margined with red. It is a

native of Brazil: first detected there by Mr. DOUGLAS, and since found in the Organ mountains by Mr. GARDNER, whose flowering plant, grown in the Glasgow Botanic Garden, is here represented. It blossomed first in October, 1839.

DESCR. *Pseudo-bulbs* clustered, nearly cylindrical, furrowed, but not deeply, bearing at the extremity a solitary *leaf*, which is lanceolate, obscurely nerved, somewhat coriaceous, acute, almost acuminate. *Scape* slender, rising from the base of a *pseudo-bulb*, and, including the *panicle*, a foot or more long. *Sepals* and *petals* pale yellow-green, banded with orange, oblongo-spathulate, concave: the two inferior sepals combined into one, shorter than the upper and emarginate. *Lip* panduciform, bright yellow, near the base blotched with orange-red: the side-lobes are very narrow, almost linear, channelled beneath: the middle one nearly orbicular, of an uniform yellow colour, (not bordered with red, as in the plant figured in the Botanical Register). Near the base, the disk is crested with orange-red tubercles, and furnished with two projecting *horns*. *Column* pale yellow, downy above, and with a projecting, linear, obtuse wing on each side. *Anther-case* hemispherical, with two recurved horns at the lower margin, downy. *Pollen-masses* two, with a long, slender *caudicula* and a minute *gland*.

Fig. 1. Flower. 2. Lip. 3. Column. 4. Pollen-masses:—*magnified*.

W. Fitch del.

Pub. by S. Curtis, Glazenwood, Essex, Feby 1.1842.

(3927)

ARCTOSTÁPHYLOS PÚNGENS. SHARP-POINTED ARCTOSTAPHYLOS, OR BEAR-BERRY.

* * *

Class and Order.

DECANDRIA MONOGYNIA.

(Nat. Ord.—ERICACEÆ.)

Generic Character.

Calyx 5-partitus persistens. *Corolla* ovato-urceolata, ore 5-dentato revoluto brevi. *Stamina* 10 inclusa, filamentis basi subdilatatis sæpiùs piloso-ciliatis, antheris compressis apice biporosis lateraliter biaristatis, aristis reflexis. *Ovarium* globoso-depressum squamis 3 carnulosis cinctum. *Stylus* brevis. *Stigma* obtusum. *Bacca* (seu *drupa baccata)* globosa, 5 rarius 6—7 imo 10-locularis, loculis 1-spermis !—Suffrutices fructicesve. Folia *alterna sæpius persistentia, integra aut denticulata.* Racemi *terminales bracteati.* Corollæ *albæ aut rubræ.* Fructus *rubri aut nigri.*

Specific Character and Synonyms.

ARCTOSTAPHYLOS *pungens;* erecta, ramulis racemis foliisque junioribus tenuissime velutinis, foliis ovalibus oblongisve coriaceis mucronato-pungentibus utrinque acuminatis coriaceis integerrimis, racemis brevibus terminalibus, bracteis acuminatis.

ARCTOSTAPHYLOS pungens. *H. B. K. Nov. Gen. Am.* 3. *p.* 836. *tab.* 259. *De Cand. Prodr.* 7. *p.* 584. *Benth. Pl. Hartw. n.* 91. *Andr. Pl. Exsicc. n.* 261. *Hartweg, Pl. Mexic. n.* 91.

Seeds of this plant were sent from Mexico by Mr. BLAIR, to the Glasgow Botanic Garden, and the plants raised from them produced flowers in February, 1841, from which our

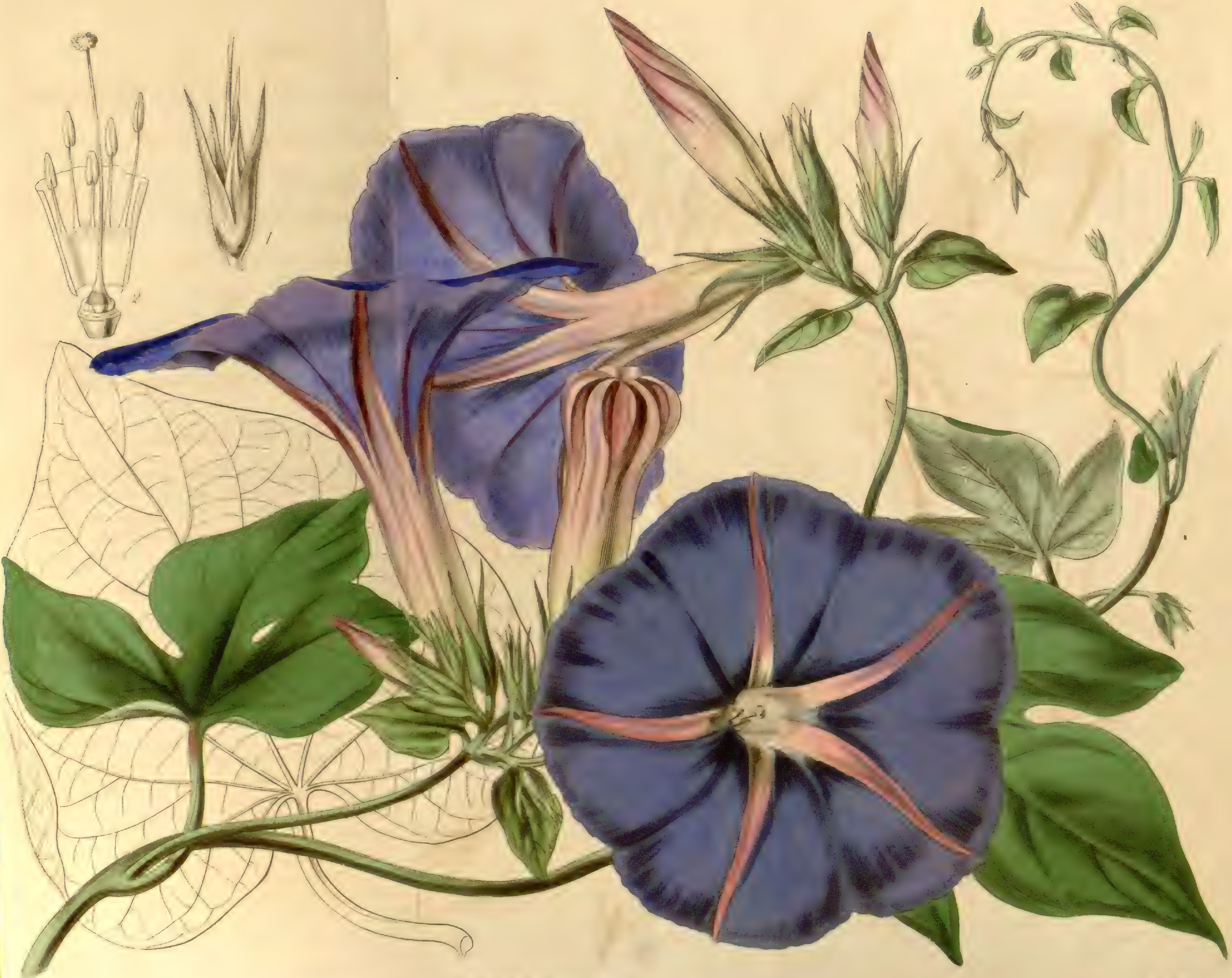
figure was taken. Humboldt detected it first in elevated places about Moran and Villalpando. Andrieux found it in Oaxaca, and Hartweg at Zacatecas. Although there is no question that our plant is the same with the A. *pungens* of Humboldt and Kunth, yet it may admit of great doubt if that species be distinct from the Arbutus *tomentosa* of Pursh and Hook., Bot. Mag. tab. *3320*; one of the forms of the var. β, there noticed, and which variety we considered the southern state of the plant. Certainly our Californian variety, noticed in the Botany of Beechey's voyage, is identical with the Mexican *pungens*. Its chief characteristics are the absence of hairs on the stems and petioles and the smaller size of leaves, which are more acute, more obtuse, or cordate at the base. Hitherto it has been treated as a greenhouse plant; but probably, this, as well as the more northern A. *tomentosa,* will be found to bear our winters with impunity in the open air.

Descr. Our plant has attained a height of a foot and a half, is much branched; the *branches* rounded; the younger ones green and downy, the rest glabrous. *Leaves* an inch to an inch and a half long, elliptical, spreading, coriaceous, single-nerved, quite entire, acute at the base, almost acuminate and pungent at the point. *Racemes* short, eight to ten-flowered, terminal, drooping. *Calyx* of five deep, concave, fringed, greenish-white segments. *Corolla* urceolate, white, tinged with greenish-rose colour, with five short, spreading teeth. *Stamens* ten. *Filaments* subulate, hairy, contracted at the base. *Anthers* with two pores, and with two very long, flexuose awns. *Ovary* on a glandular disk.

Fig. 1. Flower with Bracteas. 2. Flower laid open. 3. Calyx and Pistil. 4. Stamen:—*magnified.*

At Tab. 3904, for "Arctostaphylos *nitida*," read "Arctostaphylos *discolor*." The former name was written at the time when the plant was supposed to be the A. *nitida* of Mr. Bentham, (Plant. Hartw. n. 483,) and omitted to be altered afterwards.

3919



Pub by S Curtis Glazenwood Essex Ma^r 1.1842

Swan Sc.

Pharbítis Learíi. Mr. Lear's Gaybine.

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Class and Order.

Pentandria Monogynia.

(Nat. Ord.—Convolvulaceæ.)

Generic Character.

Calyx 5-sepalus. *Corolla* campanulata, aut campanulato-infundibuliformis. *Stylus* 1. *Stigma* capitato-granulatum. *Ovarium* 3-rarius 4-loculare, loculis dispermis. *Chois.*

Specific Character and Synonyms.

Pharbitis *Learii;* radice tuberosa, foliis cordatis acuminatis integris trilobisque pilosis undique viridibus, cymis multifloris capitatis, pedunculo foliis longiore, sepalis bracteisque linearibus acuminatis adpresse pilosis. *Lindl.*

Pharbitis Learii. *Lindl. Bot. Reg.* 1841, *t.* 56.

Ipomæa Learii. *Paxton, Mag. of Bot. v.* 6. *p.* 267.

The splendid specimen here figured of this most beautiful plant is from the greenhouse of Mr. Curtis at Glazenwood nursery, and the drawing from the pencil of Miss Georgiana Curtis. It is a native of Buenos Ayres, and was sent by Mr. Mandeville, our minister in that country, to the Hon. W. F. Strangways, who have thus jointly the honour of introducing one of the most ornamental of plants to our greenhouses and conservatories.

By the older writers this plant would be referred to the ill-defined Genus Ipomæa. But Moench, as M. Choisy remarks, had long observed that many Ipomæas, not unfrequent in our gardens, (for example, I. *Nil, hederacea, purpurea, &c.,*) which have the most striking analogy in habit, might be distinguished by the name of *Convolvuloides*, distinguished by an ovary of three cells, each of two seeds.

This name, however, being untenable, Choisy proposed the present one, in allusion to the beauty and variety of colours[*] displayed in the greater number of the species;—and, certainly, which shine pre-eminently in this.

At Mr. Knight's, Nursery, King's Road, Chelsea, a fine plant of this, forty feet in length, produced no less than sixty thousand flowers, expanding successively, from three to eight hundred a day.

The species of the Genus are mostly of American origin. **Pharbitis** *Nil* (see our Tab. 188.) is, indeed, universally distributed throughout the tropics; P. *hispida* and *hederacea* are equally found in the old and in the new world; and P. *insularis* is a native of the Polynesian islands.

Descr. *Stems* long, climbing, hairy, but the hairs deciduous. *Leaves* alternate, varying extremely in size and in shape:—from three to four or five inches long, all of them cordate, acute; some entire, others more or less deeply cut into three, broad lobes, hairy on both sides, especially beneath, where they are paler. *Peduncles* axillary, longer than the leaves, hairy, bearing a cyme of several *flowers* accompanied by linear-lanceolate bracteas. *Calyx* hairy, or almost silky, of five unequal, erect, linear-lanceolate sepals. *Corolla* large, very beautiful; the whole, when in bud, lilac; when expanded, the *tube*, which is long, nearly straight, and angular, is lilac; the *limb*, which spreads rather suddenly and horizontally, is four to five inches across, and of a rich violet blue, with five purple rays. *Stamens* unequal, inserted near the base of the tube, and quite included within it. *Ovary* surrounded by a five-lobed disk or cup. *Style* as long as the tube. *Stigma* capitate, granulated.

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[*] From *φαϱβη, colour.*

Fig. 1. Calyx. 2. Pistil and lower part of the Tube of the Corolla, with the Stamens: slightly *magnified.*

3929.

Pub. by S. Curtis Glazenwood Essex Mar. 1. 1842.

CATASETUM ABRÚPTUM. BLUNT-LIPPED CATASETUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium sæpius globosum, nunc explanatum. *Sepala* et *petala* subæqualia. *Labellum* crassum, carnosum, nudum, ventricosum vel explanatum, fimbriatum; sub apice saccatum obsolete trilobum. *Columna* erecta, aptera, libera, apice utrinque cirrhosa. *Anthera* subbilocularis, antice truncata. *Pollinia* 2, postice biloba vel sulcata; *caudicula* maxima nuda demum elastice contractili; *glandula* cartilaginea subquadrata.—Herba *terrestris vel epiphyta; caulibus brevibus fusiformibus vestigiis foliorum vestitis.* Folia *basi vaginantia, plicata.* Scapi *radicales;* Flores *speciosi, racemosi, virides, nunc purpureo-maculati. Lindl.*

Specific Name and Character.

CATASETUM *abruptum;* pseudo-bulbis oblongis compressis vaginis foliorum tectis, foliis lato-lanceolatis, racemo oblongo nutante, perianthio compresso-globoso, petalis sepalisque subrotundo-ellipticis arcte imbricatis, labello magno carnoso trilobo lobis lateralibus abruptis intermedio (seu apice) breviter producto truncato emarginato.

From the Glasnevin Botanic Garden, whence it was kindly sent by Mr. MOORE, who received it from Brazil, through the favour of Doctor GOGARTY. It blossomed first with Mr. MOORE, in September, 1841, and again in October of the same year.

At first sight a very great similarity will be recognised between this and CATASETUM *luridum*, Lindl. and Bot. Mag., t. 3590. It is possible it may be a variety; at the same time, the greater depression of the whole perianth, and the different form of the lip are very obvious peculiarities, and such as I think will entitle this to rank as a species. In C. *luridum* the two side lobes of the lip run down gradually into the apex or middle lobe, which is also considerably prolonged and reflexed. In our plant the side lobes are very distinct and abrupt, presenting a vertical edge towards the middle lobe or apex, which is, moreover, very short. In other respects the description of one will serve for that of the other.

Fig. 1. Section of the Labellum, exhibiting the abrupt edge of one of the side Lobes and the shortness of the middle Lobe, together with the Column and Anther-case:—slightly *magnified*.

W. Fitch del.^t

Pub. by S. Curtis Glazenwood Essex Ma.^r 1. 1842.

Swan Sc.

(3930)

GASTROCHÍLUS PULCHÉRRIMA. HANDSOME-FLOWERED GASTROCHILUS.

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Class and Order.

MONANDRIA MONOGYNIA.

(Nat. Ord.—SCITAMINEÆ.)

Generic Character.

Calyx tubulosus, hinc fissus. *Corollæ tubus* elongatus, filiformis, limbi laciniæ exteriores æquales patentes, interiores laterales latiores, basi cum filamento in tubum connatæ; labellum maximum, saccatum. *Filamentum* lineare, ultra *antheræ* muticæ loculos connectivo longiores haud productum. *Ovarium* inferum, triloculare. *Ovula* in loculorum angulo centrali plurima, horizontalia, anatropa. *Stylus* filiformis; *stigma* capitato-convexum. *Capsula*——. Herbæ *Indicæ, acaules vel caulescentes; radice repente vel fibroso-ramosa, tuberibus subsessilibus fasciculatis, spica radicali vel terminali imbricata, floribus nutantibus.* Endl.

Specific Character and Synonyms.

GASTROCHILUS* *pulcherrima;* foliis lanceolatis subsessilibus, spica terminali secunda, tubo corollæ incluso. *Wall.*

GASTROCHILUS pulcherrima. *Wall. Plant. Asiat. Rar. v. 1. p. 22. tab. 24.*

A native of Rangoon in the East Indies, where it flowers in August, and our plants in the Royal Botanic Garden, sent by the kindness of Dr. WALLICH, blossom at the same season. Their blossoms are very handsome and graceful, and, at first sight, give the idea of some Orchideous plant. But it is truly one of the SCITAMINEÆ, allied, as Dr. WALLICH well observes, on the one hand to ALPINIA, and on the other to KÆMPFERIA: with the former it agrees in habit, and in its naked anther; with KÆMPFERIA in having the lobes of the perianth disposed in two alternating rows. It requires the heat of a stove, and seems to thrive well with the same treatment as is given to *Orchideous plants*.

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* Γαστηρ, the *abdomen,* and χειλος, a *lip;* from the inflation of the larger lobe of the corolla or lip.

DESCR. *Root* creeping, fleshy; throwing up, besides the leafy *stems*, rounded *tubers*, marked with circular rings. *Stems* a foot to a foot and a half high, below sheathed with leafless scales, above with the bases of the leaves, which are auriculated. *Leaves* five to six inches long, broadly lanceolate, acuminate, pale beneath. *Costa* prominent below. *Veins* oblique. *Spike of Flowers* arising from the axil of the upper leaves, and closely imbricated in a distichous manner with green, lanceolate scales or *bracteas*, from whence the *flowers* issue, three or four at once, and continue to appear in succession for a considerable length of time. *Calyx* tubular, cleft above on one side, and bluntly three-toothed. *Corolla* white, or cream-coloured, the larger segment with a rich, sanguineous spot with two white streaks. *Tube* slender, singularly curved at the apex, so that the *limb* is drooping, and six-cleft; the *laciniæ* connivent in two rows, exterior of three equal appressed linear-oblong segments, inner of three unequal ones, of which two are short and unequal, and the lower one, or *labellum*, large, concave, convolute at the base, and then accrete with the stamens. *Filament* short. *Anther* large, oblong. *Ovary* oblong. *Style* about as long as the anther. *Stigma* convex, elevated a little above the anther.

Fig. 1. Flower, from which the Labellum and the three outer segments of the Corolla are removed. 2. Inner view of the upper portion of the same. 3. Ovary and Calyx:—*magnified.*

W. Fitch del.

Pub. by S. Curtis Glazenwood Essex Mar. 1. 1842

Swan sc.

(3931)

OREODÁPHNE BULLÁTA. BLISTERED MOUNTAIN-LAUREL.

Class and Order.

ENNEANDRIA MONOGYNIA.

(Nat. Ord.—LAURINEÆ.)

Generic Character.

Hermaphroditæ vel *dioicæ* aut *polygamæ*. *Perianthium* sexpartitum aut sexfidum, subæquale; *limbo* demum evanescente. *Stamina* novem; *antheræ* oblongæ in filamentis angustis; locelli quaterni per paria unus super altero positi, antherarum trium interiorum reversi. *Staminodia* quarti ordinis vel nulla, vel subulata aut saltem minus completa. *Bacca* perianthii tubo in cupulam profundam crassamque converso truncatoque magis vel minus immersa.—Inflorescentia *paniculata vel racemosa, plerisque densa, multis etiam brevis et thyrsoidea, axillaris, in quarto subgenere umbellulata. Nees.*

Specific Character and Synonyms.

OREODAPHNE* (CERAMOPHORA) *bullata;* foliis ellipticis aut oblongo-ellipticis basi acutis in petiolum longum late canaliculatum desinentibus apice acutato-obtusis arcte reticulatis subtiliterque venosis glabris axillis venarum costalium inferiorum subtus excavatis ciliatisque supra grosse bullatis, racemis infra gemmam axillarem et terminalem racemoso-confertis paucifloris pubescenti-scabris, perianthii laciniis tubo longioribus glabris, staminodiis capitatis. *Nees.*

OREODAPHNE bullata. *Nees Laurin. p.* 449.

LAURUS bullata. *Burchell, Trav. v.* 1. *p.* 72. *note.*

A native of Zwellendam district, Cape of Good Hope, and, in reality, the only plant belonging to the old Genus LAURUS which is found in Southern Africa; for it was

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* So called by NEES VON ESENBECK from ὄρος a *mountain,* and δάφνη, *Laurel,*—or *Mountain-Laurel,* because many of the species inhabit mountains.

through a mistake in our Journal of Botany, vol. iv. p. 418, (as explained in the *erratum,* same vol. p. 436,) that another species is described as inhabiting that region (LAURUS *Bowiei*[*]), that species proving, on further investigation, to be a native of Moreton Bay, in Australia. It is this, of which we now give a representation, that was sent by Mr. BOWIE to the Royal Gardens of Kew as the " African Oak," of the colonists, and is so spoken of by BARROW in his " Travels in Southern Africa." It is, therefore, not improbable that the " African Oak" of tropical Africa is also a species of *Laurel,* as the acute Mr. BROWN's investigations have, independent of the fact now related, led him to conjecture.

Another name, given to our tree (for such a size it must attain, though I do not find the dimensions of the trunk anywhere described) in the Cape colony, is the *Stink-hout* (Stink-wood). Speaking of Cape Town, Mr. BURCHELL says, " Beams and floors of the *Teak-wood* of India are not uncommon ; but the greatest part of the timber used in building, and, indeed, for every other purpose, is the *Geelhout,* (yellow-wood) (a species of PODOCARPUS,) and the *Stink-hout* (LAURUS *bullata*). The latter is a handsome wood and resembles Mahogany both in colour and quality. Chairs, tables, and other furniture, are made of it.—It is, therefore, well worthy of being transplanted to other of our colonies, enjoying a climate similar to that of the Cape."

DESCR. A tree. With us, treated as a greenhouse plant and only grown in a pot, the *stem* has not attained a greater height than four or five feet ; the *branches* clothed with brown, smooth *bark,* the younger ones tinged with red. *Leaves* alternate, coriaceous, elliptical, entire, acute, rather obtuse at the base, and, what is a striking feature of the species, having at the axils of two or more of the lower costal veins on the underside, deep pits or hollows ciliated at their edges, and exhibiting on the upper side corresponding elevations, whence the specific name is derived ; their colour is olive, or brownish-green. *Peduncles* from the side of the branch beneath the petiole : about as long as the leaves, bearing a *raceme* of *flowers,* moderately small and destitute of fragrance. *Pedicels* with minute *bracteas.* *Tube* of the *perianth* short ; *limb* of six spreading, ovate, concave, green *segments.* *Stamens* nine ; the three interior opening outwards, all of them by means of four valves. *Glands* of the outer stamens, or *staminodia,* large, capitate. *Germen* ovate. *Style* tapering. *Stigma* peltate.

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[*] L. *australis,* All. Cunn. ; which name it ought to retain.

Fig. 1. Flower. 2. Stamen. 3. Pistil :—*magnified.*

[illegible] del.

Pub by S. Curtis Glazenwood Essex. Mar. 1.1842.

OXÁLIS LASIOPÉTALA. HAIRY-PETALED WOOD-SORREL.

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Class and Order.

DECANDRIA PENTAGYNIA.

(Nat. Ord.—OXALIDEÆ.)

Generic Character.

Calyx 5-sepalus, sepalis liberis aut basi coalitis. *Petala* 5. *Stamina* 10, filamentis basi breviter monadelphis, 5 ext. alternis brevioribus. *Styli* 5, apice penicilliformes aut capitati. *Capsula* pentagona oblonga aut cylindracea.—Herbæ *perennes, caulescentes stipitatæ aut acaules, foliis variis sed nunquam abrupte pinnatis. D C.*

Specific Character and Synonyms.

OXALIS *lasiopetala;* radice tuberosa, foliolis obcordato-bilobis supra glabriusculis subtus pubescentibus, scapo plurifloro, petalis calycibusque extus pilosis, sepalis apice bipunctatis, stylis erectis strictis stamina excedentibus.

OXALIS lasiopetala. *Zucc. Monogr. Oxal. d'Amérique, n.* 17. *Spreng. Syst. Veget. cur. post. p.* 184.

The species of OXALIS are very numerous, both in South Africa and in the southern regions of South America. From the latter country and from the neighbourhood of Buenos Ayres and Monte Video, our present plant is derived. We have received dried specimens from Mr. TWEEDIE, and the same collector has sent seeds to the Glasnevin Botanic Garden, Dublin, which Mr. MOORE was successful in raising, and to him we are indebted for the plant here figured. It blossoms readily in the greenhouse, and its copious bright red-purple flowers render it a very desirable plant. It precisely agrees with native specimens in my Herbarium, communicated from the Royal Berlin Herbarium, as the true O. *lasiopetala.*

On the American individuals of this Genus, ZUCCARINI, who first described the present plant, has published a

Monograph. When his work appeared in 1825, the number of species amounted to seventy-seven, and thirty new ones have since been added, making the total amount of one hundred and seven *Wood-Sorrels*, found in South America alone. ZUCCARINI is of opinion that the bulbs of OXALIS do not belong to the roots, but to subterranean stems, and they exist of very various sizes, from the offsets or elongated stolones of O. *stricta*, to the large tubers of O. *crassicaulis*. These differences depend wholly on the number, thickness, and approximation (or the reverse) of the scales, which, when fleshy, form by their close position, bulbs, analogous to those of ALLIUM. The roots themselves are branching and fusiform; they may exist singly, as in O. *conorhiza;* or spring from a bulb-bearing rhizoma (O. *papilionacea*); or be mingled with the bulbiferous rhizomas, as may be observed in O. *crassicaulis*.

The position of the leaves in this Genus is such, that the ninth leaf covers over the first, after three spiral turns. When the internodes are elongated, the leaves become closely grouped together, and some authors have even erroneously termed them *verticillate leaves* (ex. O. *distans, hedysaroides*, &c.)

The arrangement of the stamens in OXALIS also presents a striking peculiarity. The longest, or internal stamens are alternate with the stigmas and petals, and opposite to the sepals, with which again the short or outward stamens are alternate. It might be supposed, strictly speaking, that one row of stamens, intermediate between the petals and the shortest stamens, becomes regularly abortive; and this seems the more probable, because the filaments of the longer stamens bear teeth which might be considered as the rudiments of the absent series.

In OXALIS *tetraphylla*, however, the shorter filaments bear analogous teeth, so that it would appear as if there had existed, outside of them, a row of stamens opposite to the sepals, which would bring the primitive number of stamens in this Genus up to twenty-five, of which fifteen become constantly abortive, while ten are perfect.

DESCR. *Root* elongated, tuberous, and nodose, or bearing knots or teeth, with thickish scales. *Leaves* radical, numerous. *Petioles* long, terete, glabrous. *Leaflets* large, obcordate, with a deep notch. *Peduncle* elongated, terminated by a cyme of many bright-coloured flowers. *Sepals* elliptical-lanceolate, acute, with deep orange-coloured spots at the apex of each. *Petals* deep rose-colour, oblique. *Stamens* with the *filaments* united into a long ovate tube, glabrous, five longer than the others. *Styles* perfectly erect, approximate, much longer than the stamens. *Stigmas* globose. *Capsule* oblong-acuminate, with five sharp angles

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Fig. 1. Flower, with the Petals removed. 2. Petal. 3. Stamens and Pistil. 4. Pistil. 5. Capsule.—*magnified*.

3923.

W. Fitch del.

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Swan Sc.

ACÁCIA PLATÝPTERA. BROAD-WINGED ACACIA.

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Class and Order.

POLYGAMIA MONŒCIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Flores polygami. *Calyx* 4—5-dentatus. *Petala* 4—5, nunc libera, nunc in corollam 4—5-fidam coalita. *Stamina* numero varia 10—200. *Legumen* continuum exsuccum bivalve.—Frutices *aut* arbores, *habitu et foliatione valde variæ.* Spinæ *stipulares, sparsæ aut nullæ.* Flores *flavi, albi aut rarius rubri, capitati aut spicati, decandri aut polyandri, eleutherandri aut monadelphi, petalis* 4—5 *liberis coalitisve constantes.* *D C.*

Specific Character and Synonyms.

ACACIA *platyptera;* capitulis in pedunculo solitariis, stipulis minimis subpungentibus, phyllodiis bifariam decurrentibus pilosis apice recurvo-mucronatis, nervo unico centrali, margine superiore dente unico glandulifero, internodiis linearibus longissimis. *Graham.*

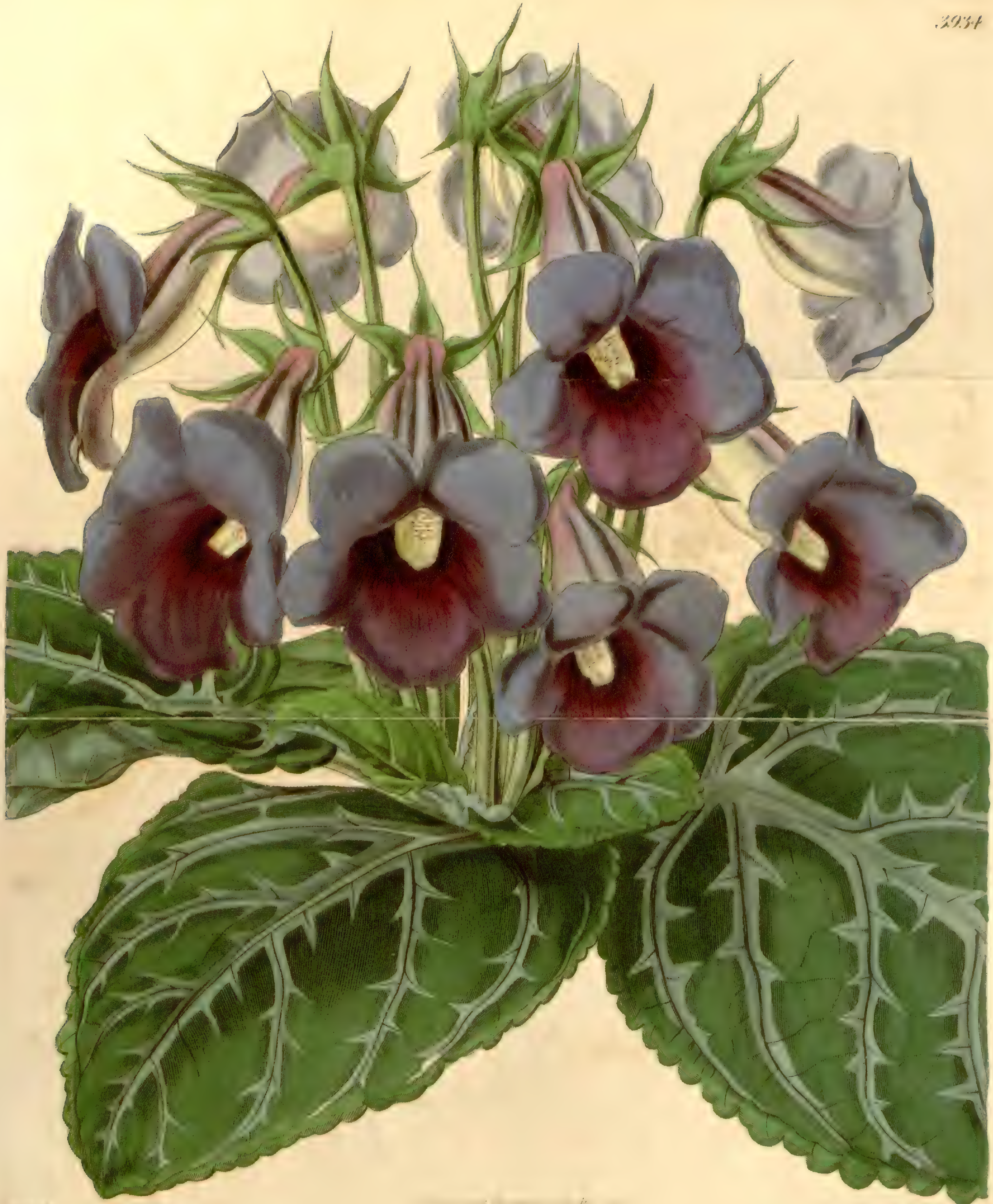
ACACIA platyptera. *Lindl. Bot. Reg. Miscell.* 1841, *n.* 10.

This beautiful ACACIA compensates for the absence of leaves in the quantity and rich yellow colour of its heads of flowers. It was obligingly sent from Oakfield, Cheltenham, by Mrs. WRAY, who had obtained seeds of it from the Swan River settlement. That lady rightly judged it to be the A. *platyptera* of Dr. LINDLEY; though we received, about the same time, another and nearly allied Swan River species from Dr. GRAHAM, under that name, but which will soon be figured in this work as A. *erioptera* of that gentleman.

A. *platyptera* appears to have first blossomed with Messrs. Lucombe & Pince of Exeter; and since also with Messrs. Low of Clapton, as well as at Oakfield and Edinburgh; so that it may be considered a peculiarly free flowerer, and a most desirable greenhouse autumnal blossoming plant.

Descr. *Stems,* in reality, slender and almost filiform, throwing out spreading, alternate *branches,* which, as well as the stem, are all winged with comparatively broad, flattened, green expansions, rather thickly hairy, and marked with obscure, oblique nerves in the older portions. *Phyllodia* scarcely an inch long, and gradually smaller upwards. These are so completely decurrent into the wings as to represent only large, oblique teeth, with a sharp, recurved mucro, and a nerve passing obliquely from the base to the apex. *Stipules* small, subulate, deciduous. The copious younger branches are clothed at short distances with deep yellow, pedunculated, globose heads of *flowers. Peduncle* about as long as the head of flowers, always arising from the axil of a phyllodium. Each minute flower has an ovate, ciliated *bractea* at the base. *Calyx* deeply five-cleft, ciliated. *Corolla* campanulate, deeply five-cleft. *Stamens* very numerous. *Ovary* oblong, glabrous: *Style* long, subulato-filiform.

Fig. 1. Flower. 2. Pistil:—*magnified.*



(3934)

GLOXÍNIA SPECIÓSA; *var.* macrophylla, variegata.
ROUGH GLOXINIA; large variegated-leaved *var.*

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—GESNERIACEÆ.)

Generic Character.

Calycis tubus imo ovario adnatus; *limbus* 5-fidus aut 5-partitus. *Corolla* infundibuliformis aut campanulato-subringens, hinc postice ad basin gibba, aut subcalcarata, tubo ventricoso, limbo patulo subbilabiato, lobis 5 rotundatis. *Stamina* 4 didynama cum quinti rudimento. *Antheræ* cohærentes. *Glandulæ* 5 perigynæ. *Stylus* in *stigma* orbiculatum concavum subinfundibuliforme abeuns. *Capsula* 1-locularis bivalvis, placentis 2 parietalibus bilobis, seminibus numerosis oblongis.—Herbæ *aut* suffrutices, *species Australi-Americanæ, pleræque Brasilienses.* Folia *opposita, interdum radicalia, petiolata, crenata.* Flores *ampli axillares aut radicales, pedicellati, sæpius nutantes. D C.*

Specific Character and Synonyms.

GLOXINIA *speciosa;* caule abbreviato aut subnullo, foliis subradicalibus longe petiolatis puberis hirsutisve ovalibus oblongisve crenatis, pedicellis petiolo longioribus 1-floris, calycis 5-partiti lobis acuminatis, corolla ventricosa.

GLOXINIA speciosa. *Lodd. Bot. Cab. t.* 28. *Ker, Bot. Reg. t.* 213. *Sims, Bot. Mag. t.* 1937. *De Cand. Prodr. v.* 7. *p.* 534.

(β.) *albiflora;* corollis albis. *Hook. Bot. Mag. t.* 3206.

(γ.) *macrophylla;* foliis majoribus albo-variegatis. (Tab. nostr. 3934.)

This really superb variety of the well-known GLOXINIA *speciosa* was sent to the Messrs. VEITCH, Mount Radford

Nursery, Exeter, by their collector, from the Organ Mountains of Brazil. It produced the noble cluster of blossoms here represented in September of the same year, when it was exhibited at the Horticultural Society, and gained the certificate of merit.

Not only are the flowers much more conspicuous than in the ordinary state of the plant, and more richly coloured, but the foliage also, is much larger, and mottled with pale whitish-green about the veins, which considerably enhances the beauty of the whole object.

3935.

Pub by S Curtis, Glazenwood, Essex. Apr.l 1 1842

(3935)

COLOCÁSIA ODORÁTA. FRAGRANT INDIAN-KALE.

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Class and Order.

MONŒCIA POLYANDRIA.

(Nat. Ord.—AROIDEÆ.)

Generic Character.

Spatha recta v. cucullata. *Spadix* interrupte androgynus, antheris rudimentariis infra v. etiam supra stamina, appendice sterili clavata v. acuminata. *Antheræ* biloculares, plurimæ, connectivis conoideis, truncatis, sessilibus v. substipitatis verticillatis adnatæ discretæ, loculis contiguis, apice poro communi apertis. *Ovaria* plurima, conferta, liberalia, unilocularia. *Ovula* in loculis subsena, placentis parietalibus tribus prope basin affixa, erecta, orthotropa. *Stylus* brevissimus; *Stigma* subcapitatum. *Bacca* —— ?—Herbæ *Indicæ ; rhizomate tuberoso v. caulescente ; foliis simultaneis, peltatis, pedunculis subsolitariis, v. ex eadem axilla pluribus abbreviatis, vaginatis. Endl.*

Specific Character and Synonyms.

COLOCASIA *odorata;* caudice elongato, foliis cordatis longe petiolatis nervis prominentibus lobis rotundatis, spadice clavato medio staminifero, infra et supra, (usque ad apicem) staminibus abortivis tecto, spatha cymbiformi breviore.

CALADIUM odoratum. *Roxb. MSS. (fide Lindl.)*

CALADIUM odorum. *Lindl. Bot. Reg. t.* 641.

COLOCASIA odora. *Brongn. in Nouv. Ann. du Mus. v.* 3. *p.* 145. *t.* 7.

What is wanting in colour to this plant is amply compensated by its arborescent character, noble foliage, and powerful fragrance. In the specimen from which our drawing was taken, and which blossoms annually in the stove of the Glasgow Botanic Garden, the stem, or caudex, is full six feet high, the petioles springing from the top of this are not less than two feet long, and then bear a blade measuring three feet or more in length. The whole appearance of the plant is truly tropical. It is a native of Pegu, and was first described by Dr. Roxburgh, and introduced to the stoves of this country, by Lord Caernarvon, at Highclere. The juice is powerfully acrid; but whether the foliage and roots are eaten like those of other species of the same Genus, Colocasia *Antiquorum* (Caladium *Colocasia*) C. *esculenta*, &c., I have no means of ascertaining.

It has been long known that plants of this natural family (Aroideæ) evolve a considerable degree of heat at certain intervals during the flowering state. Lamarck appears first to have made this discovery in 1777, upon the Arum *Italicum*. Other observations were made by Senebier, Desfontaines, Gmelin, Bory de St. Vincent, Herbert, Theodore de Saussure, and Schultes, and the result of their remarks was, at different periods, laid before the public. But M. Adolphe Brongniart, in the third volume of the Nouvelles Ann. du Muséum d'Hist. Nat., has detailed the most exact experiments, instituted upon the species of Colocasia now before us. These were made in the spring of 1834 on a finely developed plant, grown in the earth of the stove, and which had produced four flowers in the space of a month.

"The first flower began to expand on the 4th of March; but it was not till the 6th that the escape of pollen from its anthers commenced, and the increase of temperature on the spadix was perceptible to the touch. A very small thermometer, when applied to the flower, indicated a temperature in the air of 23° centigrade, while the spadix, close to the fertile stamens, was 26°, and the club, formed by the abortive stamens, was 30°, the difference being seven degrees. The heat of the flower gradually diminished, and in the evening its temperature was the same as that of the stove.

"It is remarkable, however, that while all the other Aroideæ that have been examined on this point, appear, when the heat has once disappeared, never to regain it, the plant under consideration exhibited the same increase of temperature at the same hour (two p. m.) of the following day, and for four days it continued, though with gradually diminishing intensity, to present a similar phenomenon, when the flower finally faded. Another blossom having appeared shortly after, I adopted many precautions which should enable me to watch its progress. I procured a very delicate thermometer, applied it accurately to the most sensible parts of the flower, and protected the bulb, by folds of flannel from the influence of the circumambient atmosphere, and by a paper shade from the rays of the sun. Another thermometer was suspended in the stove not far from the plant, to give the temperature of the stove.

"For six days a striking increase of heat took place in the flower, attaining its *maximum* about four o'clock in the afternoon, and totally ceasing during the night and early morning. The greatest difference between the temperature of the flower and the general atmosphere of the stove was eleven degrees; and as in the first blossom which was examined, so the central portion of the club of abortive stamens was the part which exhibited this heat most powerfully; next, the base of that club; and then the stamens which were fertile."

Another highly interesting circumstance is connected with this beautiful and striking plant: it is comparatively easy to observe the mode in which its pollen-tubes penetrate the tissue of the stigma. If the pistils be examined after the flower has faded, it will be seen that the stigmas are covered with a thick layer of pollen, and that a portion of these smooth spherical granules of pollen have given birth to membranous tubes, of greater or less length, which, penetrating between the utricles which constitute the papillæ of the stigma, enter, more or less deeply, into the substance of this organ.

It may be asked whether these pollinary tubes are prolonged into the ovules, as is the case in the ORCHIDEÆ; or whether they lose themselves in the substance of the stigma? And this is a point which still remains in doubt. It is a certain fact, that in many AROIDEÆ, the ovary presents, after fertilization, some filaments, which, proceeding from the style, do fill up, in part, the cavity; but these filaments may be a prolongation of the conducting tissue as well as of the pollen-tubes.

The organs of vegetation in this plant also possess some very curious peculiarities of structure. The geminate peduncles in the axils of its enormous petioles exhibit, as do those petioles and the nerves of the leaves, numerous cylindrical cavities, which, to the naked eye, appear as if coated with shining points. When examined under a microscope, these points are seen, both by transverse and longitudinal section, to be so many prominent cells, forming a kind of short bristles, each enclosing a bundle of raphides or small acicular crystals, which are laid close side by side. These crystals are here, as is constantly the case, enclosed within prominent utricles, and may be easily extracted from them; but what is very remarkable, is, that the adjoining cells which form the rest of the substance between these cavities, never present any of those crystals which abundantly coat all the cavities of the plant.

The foliage of this plant is the seat of a waxy secretion, which, though scanty in cultivated individuals, yet is produced in considerable quantities, when this and some other AROIDEÆ grow in a genial and native climate. This secretion is formed exclusively on the lower face of the leaf, and is confined to the axils of its principal nerves, where the cellular tissue produces it, and from which points this waxy substance extends sometimes over nearly the whole inferior surface of the foliage. In the cultivated plant, it only exists in small scales, at the utmost not larger than the human nail.

DESCR. *Caudex* four to six feet high, and four to six inches in diameter, marked with the scars of the fallen leaves, and crowned with ample, cordate, petiolated *foliage*. From the axils of these leaves the short *flower-stalks* appear in pairs. *Spatha* a span long, contracted below the middle, then expanding into a boat-shaped membrane. *Spadix* shorter than the spatha, club-shaped: the base clothed all round with nearly globose, green *pistils*, (the female flowers,) crowned with the broad nearly sessile stigma. Then, for about two inches the circumference is occupied with hexagonal, elongated, abortive *stamens*, above these with numerous perfect stamens (fig. 1 and 2). The large, clubbed, fleshy apex, marked with numerous sinuosities, is clothed with *stamens* still more imperfect than those below the perfect ones, and which seem to have run together in one fleshy mass.

Fig. 1. 2. Stamens. 3. Pistil: *magnified.*

3936

T Fitch. del.^t

Pub. by S. Curtis Glazenwood Essex Apr.^l 1 1842.

Swan Sc.

HIBÍSCUS CAMERÓNI. MR. CAMERON'S HIBISCUS.

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Class and Order.

MONADELPHIA POLYANDRIA.

(Nat. Ord.—MALVACEÆ.)

Generic Character.

Calyx cinctus involucello sæpius polyphyllo, rarius foliolis paucis aut inter se coalitis. *Petala* hinc non auriculata. *Stigmata* 5. *Carpella* in capsulam 5-locularem coalita, valvis intus medio septiferis, loculis polyspermis aut rarius 1-spermis. *D C.*

Specific Character and Synonyms.

HIBISCUS *Cameroni;* frutescens inermis, foliis cordatis 5-lobis grosse serratis, lobis acutis basi contractis, involucelli foliolis sub-9 minutis subulatis, calyce maximo inflato quinquefido 10-costato, petalis oblique cuneatis truncatis, columna staminea petala superante.

HIBISCUS Cameroni. *Knowles et West, Fl. Cab. n.* 82.

Mr. CAMERON, the able Curator of the Birmingham Botanic Garden, whose name this beautiful plant deservedly bears, had the good fortune to rear it from seeds sent from Madagascar by the Missionaries. I possess a very fine native specimen, gathered many years ago by the late Dr. LYALL in the same island, and marked "*Hibiscus, n. sp.*" It is indeed a remarkably well-defined species, whether we consider the leaves, the involucre, the calyx, or the corolla. It flowers readily, and for a long period during the summer months, and in that season flourishes in the greenhouse; but, in the winter, it is best kept in the stove. Hitherto it has not produced seed, but is increased by cuttings, and a young plant thus raised, presented to the Royal Gardens of Kew by Mr. Cameron, soon produced its lovely blossoms.

Descr. Judging from my native specimens, it would seem to constitute a rather tall *shrub* when arrived at maturity, the young flowering shoots green and succulent. *Leaves* petiolate, heart-shaped, deeply five-lobed, the sinuses very obtuse, the lobes acute, coarsely serrated, narrowed at the base, thus making the sinuses very broad as well as obtuse. *Peduncles* axillary, solitary, single-flowered, about as long as the *petioles,* thickened upwards. *Calyx* large, somewhat inflated, deeply five-lobed, the lobes acuminate, five-ribbed, reticulated between the ribs, jointed on the top of the peduncle. *Involucel* scarcely any, reduced to about nine small, subulate, spreading leaflets. *Corolla* spreading, of five large, obliquely cuneate *petals,* truncated at the apex, with one angle obtuse, the other acute, veined and waved, of a cream-colour tinged with rather deep rose, and a rich purple spot just above the short claw. *Staminal tube* very long, cylindrical, red-purple, longer than the petals. Free portion of the *filaments* spreading, white, as well as the *anthers.* Branches of the *style* five, exserted beyond the staminal tube, curved, red, and bearing each a red, capitate *stigma.* *Ovaries* five, combined into one, of a narrow ovate form, and thickly downy.

Fig. 1. Involucre and Ovary.

3937

W Fitch. del.   Pub. by S. Curtis Glazenwood Essex Apr. 1. 1842   Swan Sc

CATASÉTUM WÁILESII. MR. WAILE'S CATASETUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium sæpius globosum, nunc explanatum. *Sepala* et *petala* subæqualia. *Labellum* crassum, carnosum, nudum, ventricosum vel explanatum, fimbriatum; sub apice saccatum obsolete trilobum. *Columna* erecta, aptera, libera, apice utrinque cirrhosa. *Anthera* subbilocularis, antice truncata. *Pollinia* 2, postice biloba vel sulcata; *caudicula* maxima nuda demum elastice contractili; *glandula* cartilaginea subquadrata.—Herba *terrestris vel epiphyta; caulibus brevibus fusiformibus vestigiis foliorum vestitis.* Folia *basi vaginantia, plicata.* Scapi *radicales;* Flores *speciosi, racemosi, virides, nunc purpureo-maculati. Lindl.*

Specific Name and Character.

CATASETUM *Wailesii;* foliis oblongo-lanceolatis, perianthiis ovatis compressis conniventibus, sepalis petalisque acuminatis, labello subconico-cucullato, ore contracto integerrimo, antheris hemisphærico-compressis umbonatis umbone subtus squamifero.

The strange forms exhibited in the different parts of the flower of the several kinds of CATASETUM have often attracted notice. In the present instance, the most striking peculiarity is to be found in the anther-case, which, instead of being carried out into a very long point or beak, is singularly short and flattened, in the centre of which is an umbo or elevated tubercle, and beneath this, a pretty large, membranaceous, spreading scale. Whether this be simply a sport of Nature, or a permanent character, indicating a truly distinct species, I will not take upon me to say: the constancy of this mark in all the flowers would lead to the latter conclusion; and I have dedicated the species to G. WAILES, Esq., of Newcastle, a most enthusiastic lover and student of Natural History, and particularly of Horticulture and Botany. His collection of Orchideous plants is considerable, and the present individual is one of many that he has introduced from Honduras, through the kindness of G. U. SKINNER, Esq.

DESCR. *Pseudo-bulbs* and *leaves* much resembling those of the well-known CATASETUM *tridentatum*. *Scapes* radical, a foot or more tall, bearing a *raceme* of six to eight large, greenish-white *flowers*. These flowers, as seems to be common to the Genus, have the *ovaries* straight, that is, not twisted; so that the *labellum* is uppermost. The *sepals* and *petals* connive and point downwards, and are tipped with yellow-brown. *Lip* conico-cucullate, green, brownish at the edge, the *mouth* contracted, quite entire and involute: there are two very short lobes at the base which are a little fringed. *Column* large, green, with two long and strong, deflexed setæ. *Anther-case* depressed, with an umbo, and a spreading scale partly concealing the umbo.

Fig. 1. Lip. 2. Column. 3. Anther-case. 4. Pollen-masses: more or less *magnified*.

3938

W Fitch del. Pub by S. Curtis Glazenwood Essex Apr. 1 1842 Swan Sc.

OXÁLIS MARTIÁNA. DR. MARTIUS' WOOD-SORREL.

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Class and Order.

DECANDRIA PENTAGYNIA.

(Nat. Ord.—OXALIDEÆ.)

Generic Character.

Calyx 5-sepalus, sepalis liberis aut basi coalitis. *Petala* 5. *Stamina* 10, filamentis basi breviter monadelphis; 5 ext. alternis brevioribus. *Styli* 5 apice penicilliformes aut capitati. *Capsula* pentagona oblonga aut cylindracea.—Herbæ *perennes, caulescentes, stipitatæ aut acaules, foliis rariis sed nunquam abrupte pinnatis. D C.*

Specific Character and Synonyms.

OXALIS *Martiana;* radice tuberosa, foliolis obcordato-bilobis hirtis subtus copiose villosis, scapo plurifloro, pedicellis ramosis, petalis calycibusque extus pilosis, sepalis apice bipunctatis, staminibus stylos curvatos superantibus.
OXALIS Martiana. *Zucc. Monogr. Ox. Am. n.* 2.
OXALIS urbica. *St. Hil. Fl. Bras. Mérid.* 1. *p.* 128.
OXALIS floribunda. *Link. et Ott. Abbild. Gew. t.* 10.
(β.) scapis pedicellisque patenti-pilosis.
OXALIS bipunctata. *Grah. in Bot. Mag. t.* 2781.

This pretty OXALIS, which is a native of the Argentine Republic of South Brazil, and was sent us by Mr. MOORE, from the Glasnevin Botanic Garden, is in many respects so closely allied to O. *lasiopetala,* figured at our tab. 3932, that we are glad of an opportunity of pointing out the differences. These consist in the glabrous leaves of O. *lasiopetala,* and in the long erect styles which are considerably protruded beyond the longest of the stamens. A variety of our present plant is indeed already figured in this publication, the O. *bipunctata* of Dr. GRAHAM, in which the scapes and petioles are clothed with patent hairs. This species is equally worth cultivating with the O. *lasiopetala,* to which we have already referred, and is rendered very ornamental by its copious and many-flowered scapes.

DESCR. *Leaves* all radical, on long flexuose *petioles,* ternate; *leaflets* large, obcordate, approaching to triangular, with a rather deep but sharp sinus. *Scapes* radical, slender, flexuose, longer than the leaves, and bearing a rather ample *cyme* of deep, purple rose-coloured *flowers.* The branches of the cyme are slender, filiform, flexuose, more or less spreading, and more or less elongated, with a small bractea at the base. *Calyx* of five elliptical erect *sepals,* bearing two small orange-coloured *glands* at the tips. *Petals* cuneate oblique, a little hairy at the back. *Filaments* ten, united for about one-third of the way from the base into an angular, rather fleshy *tube;* of the free portion, five of the filaments are very short, and a little spreading, five much longer, quite erect. *Anthers* short-oblong, yellow. *Ovary* oblong, with five obtuse angles; *styles* five erecto-patent, hairy; *stigmas* dark green, dilated, and umbilicate. *Immature fruit* oblong, one-third longer than the calyx, with five acute angles, and tipped with the short remains of the five *styles.*

Fig. 1. Calyx with the Stamen and Pistil. 2. Petal. 3. Stamens and Pistils removed from the Calyx. 4. Portion of the Stamens. 5. Pistil. 6. Immature Fruit:—all more or less *magnified.*

3939.

[illegible] del. Pub. by S. Curtis Glazenwood Essex Apr.l 1. 1842 Swan.

ACÁCIA DÍPTERA ; β. erióptera. TWO-WINGED ACACIA ; downy *var.*

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Class and Order.

POLYGAMIA MONŒCIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Flores polygami. *Calyx* 4—5-dentatus. *Petala* 4—5, nunc libera, nunc in corollam 4—5-fidam coalita. *Stamina* numero varia 10—200. *Legumen* continuum exsuccum bivalve.—Frutices *aut* arbores, *habitu et foliatione valde variæ.* Spinæ *stipulares, sparsæ aut nullæ.* Flores *flavi, albi aut rarius rubri, capitati aut spicati, decandri aut polyandri, eleutherandri aut monadelphi, petalis 4—5 liberis coalitisve constantes. D C.*

Specific Character and Synonyms.

ACACIA *diptera ;* glaucescens, stipulis minutis v. obsoletis, phyllodiis parvis lanceolatis incurvo-falcatis longissime bifariam decurrentibus mucronatis eglandulosis, nervo margini superiori arcte approximato, pedunculis simplicibus v. hinc inde racemosis, capitulis multifloris. *Benth.*

ACACIA diptera. *Lindl. Bot. Reg. App. p.* xv. (non *Humb.* and *Bonpl.*) *Benth. Mimos. in Hook. Lond. Journ. Bot. ined. Hook. Ic. Pl. v.* 4. *t.* 369.

(β.) erioptera *(Graham) ;* velutino-pubescens, alabastris ovato-pyramidatis angulatis (Tab. nostr. 3939).

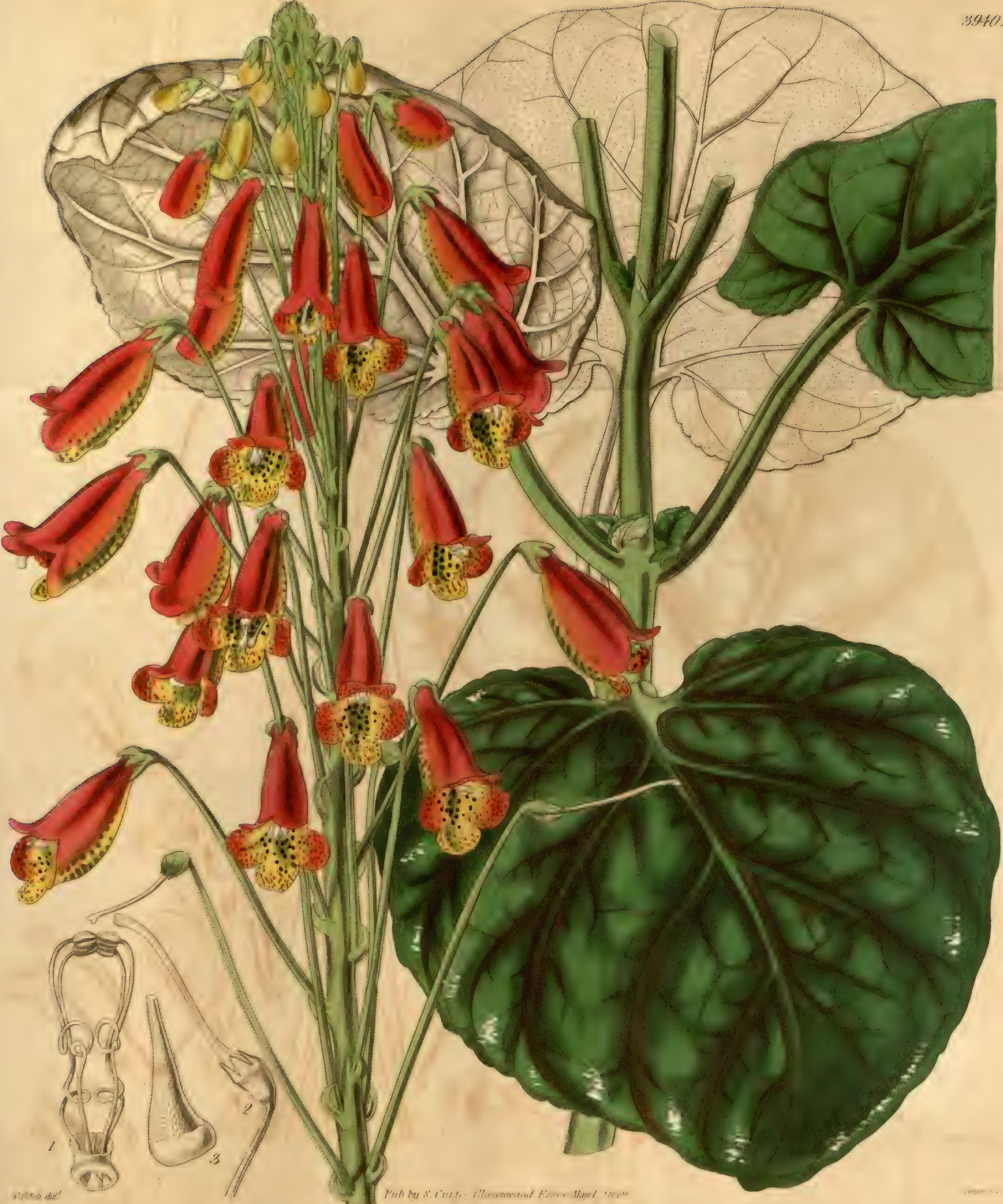
This plant we received, in 1840, at the Edinburgh Botanic Garden, from that of Glasgow, where it had been raised from Swan River seeds, sent over by Mr. JAMES DRUMMOND. It has flowered sparingly with us during the autumnal months. It will be at once seen that this is very

similar in habit to the A. *platyptera* (see our tab. 3933.); but that species is readily distinguished by the hairs with which it is clothed being less uniform, and some of them more harsh; by the stipules being subspinescent; by the phyllodia having their solitary nerve near the centre, and their having a gland on their upper edge, similar to that on ACACIA *alata;* by the mucro with which they are terminated being recurved; and by the capitula being smaller and of deeper yellow. In ACACIA *alata* (Bot. Reg. t. 396.) the terminal mucro is straight and much more rigid and pungent than in either of the species now described.

DESCR. *Stem* much branched from the bottom (the whole plant in the specimen described being about four feet high). *Branches* long, diffused, winged in two rows, internodes long, linear. *Stipules* very minute, soft, ciliated, deciduous. *Phyllodia* decurrent, densely covered with short soft hair, having a single *nerve* passing near their upper edge, and terminated by an incurved soft mucro, entirely without gland or tooth, excepting the mucro at the extremity. *Capitula* solitary, on short peduncles. *Flowers* of an uniform pale yellow, and everywhere glabrous. *Calyx* five-cleft, segments ovate. *Corolla* twice as long as the calyx, five-partite, segments ovate, concave. *Stamens* thrice as long as the corolla; *anthers* rather deeper yellow than the rest of the flower. *Pistil* scarcely longer than the stamens; *stigma* minute, capitate; *germen* slightly pinkish. *Graham.*

Fig. 1. Flower and Bractea:—*magnified.*

3940.



W. Fitch del.
Pub by S. Curtis Glazenwood Essex May 1 1842
Swan sc.

GESNÉRIA ZEBRÍNA. MOTTLE-LEAVED GESNERIA.

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—GESNERIACEÆ.)

Generic Character.

Calyx ovarii basi adnatus, limbo subinæqualiter 5-partito libero. *Corolla* tubulosa ima basi 5-gibberosa aut æqualiter subtumida, limbo 5-fido, lobis nunc in labio duo dispositis, nunc subæqualibus. *Stamina* 4, imæ corollæ adnata didynama cum quinti rudimento. *Antheræ* juniores, cohærentes. *Stylus* filiformis, stigmate capitato aut bilobo. *Glandulæ* perigynæ 2—5 circa ovarii basin. *Capsula* coriacea 1-locularis bivalvis, valvis convexis, placentis 2 parietalibus polyspermis. *Semina* scobiformia.—Herbæ *perennes, radice tuberosa; rarius frutices, caulis simplex aut opposite ramosus.* Folia *opposita aut verticillata dentata.* Pedunculi *simplices uniflori aut ramosi multiflori, axillares aut in thyrsum racemumve terminalem dispositi. D C.*

Specific Character and Synonyms.

GESNERIA *Zebrina;* caule tereti erecto pubescente, foliis oppositis longe petiolatis cordato-subrotundis, racemo terminali erecto, bracteis subulatis involutis, pedicellis simplicibus longissimis erectis, corolla nutante, segmentis brevioribus. *Graham.*

GESNERIA Zebrina. *Paxton's Magazine of Botany, vol.* 8. *No.* 96. *Lindl. in Bot. Reg.* (1842) *t.* 16.

Even in this beautiful Genus, the species now described must be looked upon as eminently attractive, both on account of its colour and its shape. We received it from Mr. Low of Clapton, who, again, had been indebted for its possession to the Botanic Garden of Ghent. In the Edinburgh Botanic Garden, and at Mr. CUNNINGHAM'S Nursery, Comely Bank, it flowered profusely in the end of September and in October.

Our drawing, handsome as it is, can give but an imperfect idea of the beautiful mottled and velvety foliage, and the rich scarlet and yellow of the copious and gracefully drooping flowers. At the time that Dr. GRAHAM'S specimen was communicated to us, we had the privilege of seeing a charming plant of this species blossoming in great perfection in the damp Orchideous stove of Mrs. LAWRENCE of Ealing Park:—an atmosphere certainly, in which the GESNERIÆ flourish better than I have seen them in any other situation. Probably such a climate is analogous to that of the native country of the GESNERIÆ, most of which come from Brazil, though the precise locality of this is not known.

DESCR. *Root* tuberous. *Stem* (including the raceme, two feet and a half high in the specimen described) round, erect, stout, branched; and, as well as the whole plant exclusive of the flowers, densely covered with unequal, spreading, simple pubescence. *Leaves* (six inches long, five and a half broad) opposite, petiolate, ovato-subrotund, slightly cordate at the base and slightly pointed, and reniform and somewhat oblique, thick and velvet-like, three-nerved, reticulate, pale beneath, full green above and darker along the nerves and veins, which are strongly prominent below, the reticulations flat, the lateral nerves generally divided at the base; *petioles* nearly as long as the leaves, the lower spreading, the upper suberect, deeply channelled above. *Raceme* terminal; *pedicels* simple, four inches long, erect, rounded, tapering a little upwards, springing from the axil of a small, subulate, involute, green, coriaceous bract. *Flowers* suspended very gracefully from the apices of the pedicels. *Calyx* green, persisting, spreading previous to the fall of the flower, afterwards connivent over the germen. *Corolla* (an inch and a quarter long above, an inch and a half below) campanulate, ventricose below, compressed laterally, glanduloso-pubescent externally, and there of a brilliant red colour, except a broad yellow stripe along the lower side; on the inside, yellow, glabrous, and sprinkled with red spots which are largest on the inside of the lower part of the tube, smaller and more crowded on the limb, of which the lobes are subpatent, blunt, unequal, the two lateral ones being rather the largest, and the two upper the smallest, and least yellow. *Stamens* arising from the cartilaginous base of the corolla, included; *anthers* oblong, the cells being in front of a broad, cartilaginous connective, and becoming co-herent as in the Genus; *pollen* white, granules very minute; abortive filament short and subulate. *Pistil* as long as the upper lip; *stigma* concave, compressed dorsally, villous on the outside; *style* stout, pubescent, filiform; *germen* pubescent, half-superior, this upper portion being surrounded at its base by the erect, lobed edge of a thin, white disk; *ovules* numerous. *Graham.*

Fig. 1. Stamens. 2. Pistil. 3. Annular Gland upon the Ovary.

3941.

W. Fitch. Del.

Pub by. S. Curtis. Glazenwood Essex May 1 1838.

Swan Sc.

LANTÁNA SELLOVIÁNA; β. lanceolata. MR. SELLOW'S LANTANA; long-leaved *var.*

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—VERBENACEÆ.)

Generic Character.

Calyx brevissimus, obsolete dentatus. *Corolla* tubulosa, limbo inæqualiter quadrilobo. *Stamina* inclusa. *Drupa* baccata, 1-pyrena, pyrene 2-loculari, 2-spermo, rima loculis interposita. *Spr.*

Specific Character and Synonyms.

LANTANA *Selloviana;* foliis subsessilibus (petiolatisve) ovatis acutis rugosis piloso-scabris, capitulis subglobosis involucris cordatis capitulo minoribus. *Link et Otto.*

LANTANA Selloviana. *Link et Otto, Ic. Pl. Sel. t.* 50. *Hook. Bot. Mag. t.* 2981. *Cham. in. Linn. v.* 7. *p.* 126.

LIPPIA Montevidensis. *Spreng. Syst. Veg. v.* 2. *p.* 751.

(β.) foliis majoribus lanceolatis. *(Tab. nostr.* 3941.*)*

The present plant was drawn from specimens, raised from seeds that had been sent from Monte Video by Mr. TWEEDIE some years ago, to the Glasgow Botanic Garden, under the persuasion that it was a new and undescribed species; but a more accurate examination, and a comparison with numerous specimens from Monte Video and the Argentine Republic, have led to the conclusion that it ought to be considered as a variety of LANTANA *Selloviana.* CHAMISSO, indeed, in the "Linnæa," above quoted, mentions two forms of this species, which, at first sight, might be considered distinct: but our's agrees with neither of them. Its chief distinction, however, rests on the larger and longer foliage, and narrower leaflets of the involucre. In other respects they quite accord.

The present plant is equally worth cultivation with the ordinary variety. In the summer it succeeds well in the greenhouse, and continues long in blossom.

Fig. 1. Flower and Leaflet of the Involucre. 2. Calyx. 3. Corolla laid open:—*magnified.*

3942

W. Fitch del.

Pub. by S. Curtis, Glazenwood, Essex, May 1. 1842.

Swan Sc.

CATASETUM GLOBIFLORUM. GLOBE-FLOWERED CATASETUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium sæpius globosum, nunc explanatum. *Sepala* et *petala* subæqualia. *Labellum* crassum, carnosum, nudum, ventricosum vel explanatum, fimbriatum; sub apice saccatum, obsolete trilobum. *Columna* erecta, aptera, libera, apice utrinque cirrhosa. *Anthera* subbilocularis, antice truncata. *Pollinia* 2, postice biloba vel sulcata; *caudicula* maxima nuda demum elastice contractili; *glandula* cartilaginea subquadrata.—Herbæ *terrestres vel epiphytæ; caulibus brevibus fusiformibus vestigiis foliorum vestitis.* Folia *basi vaginantia, plicata.* Scapi *radicales.* Flores *speciosi, racemosi, virides, nunc purpureo-maculati. Lindl.*

Specific Name and Character.

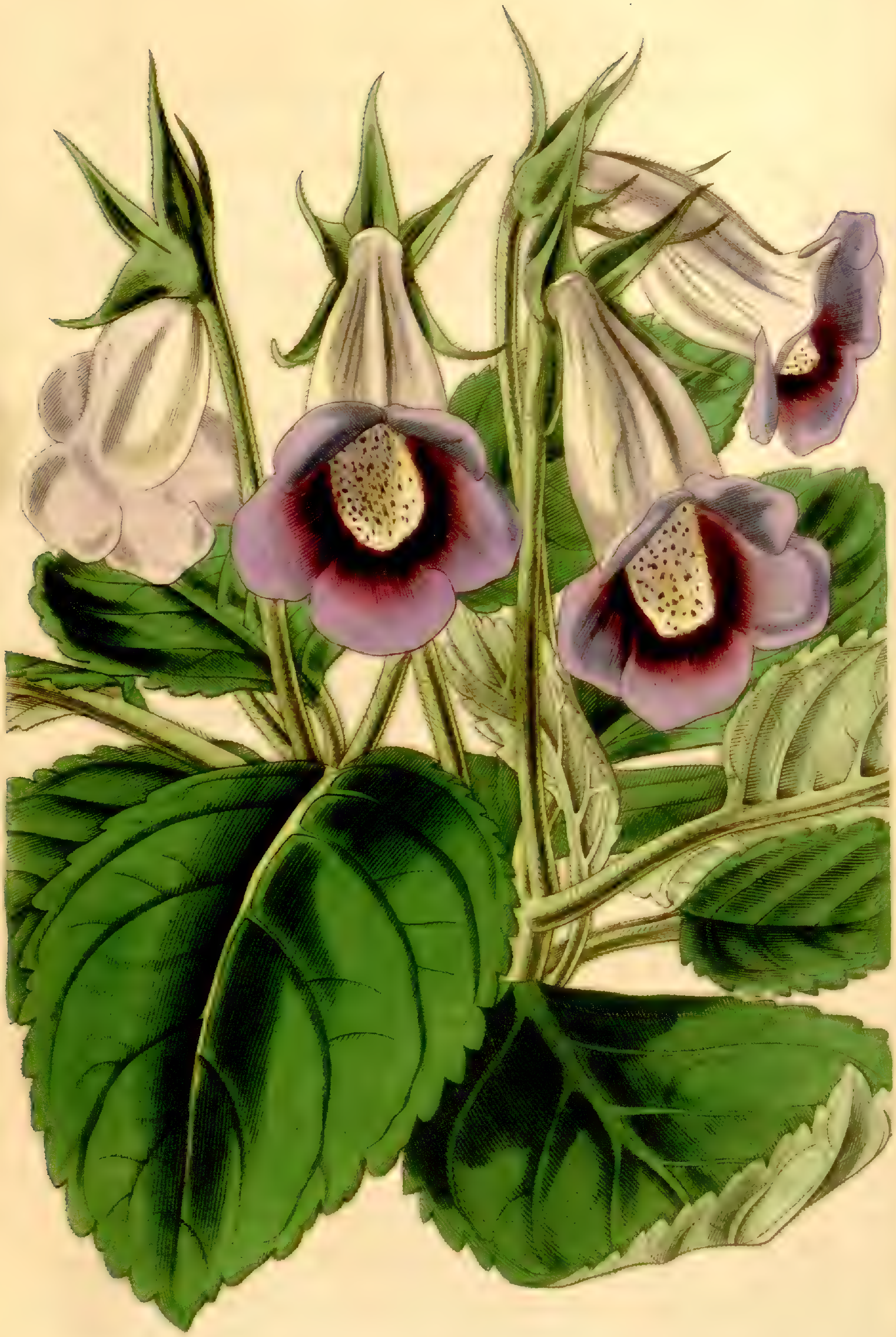
CATASETUM *globiflorum;* spica elongata multiflora, perianthio globoso, sepalis petalisque subconformibus ovatis acutis concavis arctissime imbricatis, labello hemisphærico-globoso, ore contracto oblongo inferne dilatato basi columnæ longitudine denticulato, columnæ brevis setis rectiusculis.

A most distinct and well-marked species of a very variable Genus. I am indebted to Mr. D. MOORE of the Glasnevin Botanic Garden for specimens, from the stove of that valuable establishment, which had been received from Brazil in 1840. Dr. GOGARTY, now a resident medical practitioner at Rio, sent this beautiful plant to the Glasnevin

Garden; and to the same gentleman the collections of the Royal Dublin Society and the Zoological Gardens in Dublin are likewise indebted for many valuable contributions. Mr. **Moore** informs me that one specimen produced no less than fifteen of these singular flowers.

Descr. The *pseudo-bulbs* of this species, together with the foliage, seem to be very similar to those of most of the other described CATASETA. The *spike of flowers* is from a foot to a foot and a half high. *Ovaries* long and pedicelliform, scarcely twisted. The entire blossom represents very nearly a depressed globe;—the *sepals* ovate, acute, very concave, imbricated, mottled with purplish dingy brown. The two *petals* are similar in size and shape to these, but concealed by their closer lapping: and they are pale green, spotted with purple-brown. *Lip* very concave and ventricose, approaching to slipper-shaped, with the mouth singularly contracted, oblong, dilated towards the apex, the base elevated, obscurely denticulated and enclosing the column;—the colour is pale green, richly spotted with deep purple towards the margin, and dotted with red near the apex. *Column* short, semicylindrical, pale yellow-green spotted with deep purple, and including the anther-case, not longer than the margin of the labellum. *Setæ* long, purple, nearly straight.

Fig. 1. Lip. 2. Column. 3. Pollen-masses.—*magnified.*



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GLOXÍNIA SPECIÓSA; *var.* Menziesii. ROUGH-LEAVED GLOXINIA; Mr. MENZIES' *var.*

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—GESNERIACEÆ.)

Generic Character.

Calycis tubus imo ovario adnatus; *limbus* 5-fidus aut 5-partitus. *Corolla* infundibuliformis aut campanulato-subringens, hinc postice ad basin gibba, aut subcalcarata, tubo ventricoso, limbo patulo subbilabiato, lobis 5 rotundatis. *Stamina* 4 didynama cum quinti rudimento. *Antheræ* cohærentes. *Glandulæ* 5 perigynæ. *Stylus* in *stigma* orbiculatum concavum subinfundibuliforme abeuns. *Capsula* 1-locularis bivalvis, placentis 2 parietalibus bilobis, seminibus numerosis oblongis.—Herbæ *vel* suffrutices, *species Australi-Americanæ, pleræque Brasilienses.* Folia *opposita, interdum radicalia, petiolata, crenata.* Flores *ampli, axillares aut radicales, pedicellati, sæpius nutantes.* *D C.*

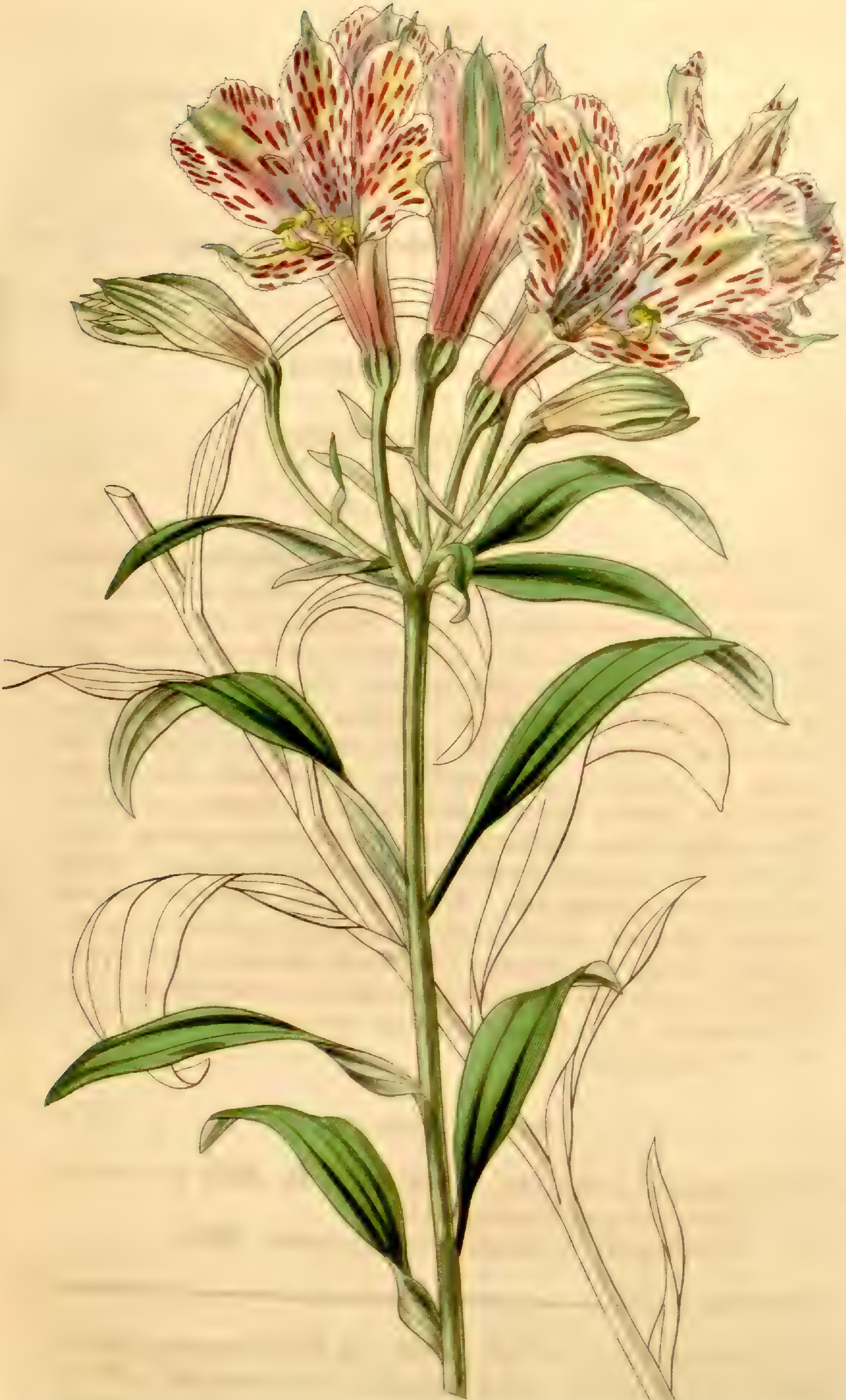
Specific Name, &c.

GLOXINIA *speciosa.* (For Specific Character and Synonyms, see our Tab. 3934 of the present volume.

(γ.) *Menziesii;* floribus pallide violaceis intus copiose punctatis. *(Tab. nostr. 3943.)*

While our artist was engaged in drawing the splendid variety of GLOXINIA *maculata*, figured at Tab. 3934 of this volume, and which was deposited by Mr. VEITCH, at Mr. CHANDLER'S Nursery, Vauxhall, he was struck with the beauty of another kind, scarcely less worthy of cultivation, in Mr. CHANDLER'S collection, where it is known under the name of GLOXINIA *Menziesii.* It is the one here represented, in which the tube of the corolla is white or cream-coloured, with a tinge of purple :—the limb much paler than the usual state of the plant ; while, withinside, the almost white throat is elegantly marked with copious purple dots.

3944



W. Fitch Del.

Pub by S. Curtis Glazenwood Essex May 1. 1838.

(3944)

ALSTRŒMÉRIA PSITTACÍNA ; *var.* Erembouldti (hybrid.). ALSTRŒMERIA ; MR. EREMBOULDT'S hybrid *variety*.

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—AMARYLLIDEÆ.)

Generic Character.

Perigonium corollinum superum, sexpartitum, subcampanulatum, regulare v. subbilabiatum, *foliola* interiora angustiora, duo basi subtubulosa. *Stamina* 6, imo perigonio inserta ; *filamenta* erecta v. declinata ; *antheræ* ovales, erectæ. *Ovarium* inferum, triloculare. *Ovula* in loculis plurima, horizontalia, anatropa. *Stylus* filiformis, directione staminum ; *stigma* trifidum, lobis replicatis. *Capsula* oblonga v. globosa, tri-sexcostata, trilocularis, loculicido-trivalvis v. rarius baccata indehiscens. *Semina* in loculis plura subglobosa, horizontalia ; *testa* membranacea, rugosa ; *rhaphe* immerso *umbilicum* basilarem *chalazæ* apicali tuberculiformi jungente. *Embryo* axilis, *albumine* carnoso dimidio brevior, *extremitate radiculari* umbilicum attingente.—Herbæ *in America Tropica et Australi extra-tropica indigenæ, radicibus tuberoso-fasciculatis ; caule folioso, erecto, scandente v. volubili; floribus terminalibus umbellatis. Nees ab Esenbeck.*

Specific Name, &c.

ALSTRŒMERIA *psittacina.* (See our Tab. 3033 for Specific Character and Synonyms.)
Var. *Erembouldti (hybrida).*—(Tab. nostr. 3944.)

Communicated in July, 1837, by Dr. GRAHAM from the Edinburgh Garden, under the name of ALSTRŒMERIA *Erembouldti,*

bouldti, with respect to which, I am favoured with the following remarks, by the Hon. and Very Rev. Mr. HERBERT.

"I understood, from the first, that ALSTRŒMERIA *Erembouldti* was raised in Germany between A. *psittacina* and *pulchra*, or *Hookeriana*, and I see no reason to doubt the fact. ALSTRŒMERIAS impregnated by the pollen of another species are very apt to produce strong pods, which disappoint the cultivator by proving empty; but, occasionally, they contain one or two seeds. Three plants of A. *aurea*, var. *Valparadisiaca*, by A. *pallida*, have been raised at Spofforth, but have not yet flowered, and do not grow so freely as the mother plant. A. *Erembouldti* is not a free plant. A strong tuber planted out amongst other ALSTRŒMERIAS at Spofforth did not vegetate. A very vigorous pot full of it in flower was exhibited at Chiswick last summer (1839), by Mr. BARCLAY's gardener, who is very successful in cultivating this Genus."

W. Fitch del.

Pub. by S. Curtis, Glazenwood, Essex

MAXILLÁRIA CUCULLÁTA. HOODED MAXILLARIA.

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Class and Order.

GYNANDRIA MONOGYNIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium connivens, raro patens. *Sepala* lateralia, cum basi columnæ connata. *Petala* subconformia. *Labellum* trilobum, cucullatum, sessile, cum basi producta columnæ articulatum. *Columna* semiteres aptera. *Anthera* subbilocularis. *Pollinia* 2, bipartibilia v. integra, caudicula brevi glandula transversa.—Epiphytæ *(Americanæ) pseudo-bulbosæ, acaules v. caulescentes.* Folia *spicata v. coriacea.* Pedunculi *radicales, axillares v. terminales, uni- v. multiflori. Lindl.*

Specific Character and Synonyms.

MAXILLARIA *cucullata;* pseudo-bulbis ovalibus compressis monophyllis, folio lato scapis longiore, vaginis imbricatis inflatis, bractea cucullata ovario longiore, sepalis ovatis acuminatis erectis, petalis conformibus paulo minoribus, labello oblongo carnoso trilobo petalorum longitudine, lobis lateralibus nanis intermedio elongato obtuso apice incrassato apiculato, callo disci spathulàto loborum lateralium longitudine. *Lindl.*

MAXILLARIA cucullata. *Lindl. Bot. Reg.* 1840, *t.* 12.

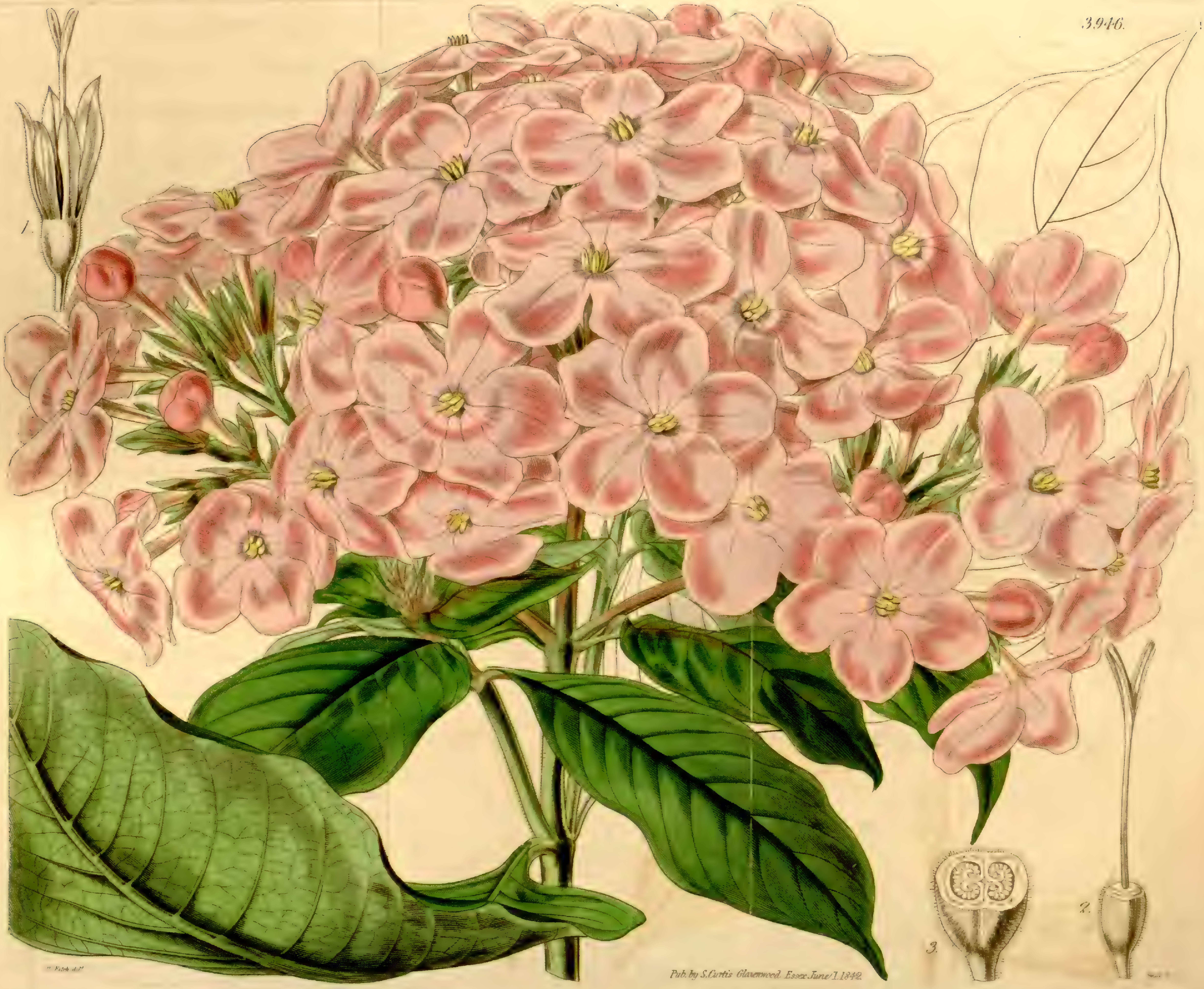
Said to be introduced to our gardens by Mr. HENCHMAN, from tropical America. It seems to have first flowered with His Grace the Duke of DEVONSHIRE. Our specimen blossomed at Kew, in September, 1841; the plant having been received from Messrs. LODDIGES of Hackney. It presents

some slight discrepancies from the plant of Dr. LINDLEY, the scapes being much shorter (thus not having the TRIGONIDIUM-like habit with which Dr. LINDLEY compares it), and the sheaths of the scape, especially the upper one, are much less inflated, so that it scarcely deserves the name of "*cucullata*," given on account of the hooded appearance of the upper sheath, or bractea, just beneath the flower.

DESCR. *Pseudo-bulbs* tufted, oblong-ovate, compressed, smooth, partially surrounded by jagged membranes, terminated by a single, linear-oblong, coriaceous, dark green *leaf*. *Scapes* radical, in our specimens, about four inches long, terete, one-flowered, jointed, and clothed at the joints with membranous, greenish sheaths, cleft on one side about half-way down, the uppermost one, or *bractea*, is larger, more inflated, and includes the base of the flower. *Perianth* of a greenish-chocolate colour. *Sepals* oblongo-lanceolate, very acute, spreading. *Petals* of nearly the same shape, but smaller than they, and less green, connivent over the column. *Lip* jointed on the base of the decurrent column, where it forms a kind of blunt spur, recurved, oblong, three-lobed, dark chocolate colour: the side-lobes small, the middle-lobe elongated: at the base of the lip, on the disk, is a spathulate, fleshy excrescence. *Column* flattened. *Anther-case* hæmispherical.

Fig. 1. Flower, with the Sepals removed. 2 Column. 3. 4. Pollen-masses:—*magnified.*

3946.


1.
2.
3.
W. Fitch del.

Pub. by S. Curtis Glazenwood Essex June 1. 1842.

LUCÚLIA GRATÍSSIMA. FRAGRANT LUCULIA.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—RUBIACEÆ.)

Generic Character.

Calycis tubus turbinatus; *limbus* 5-partitus, laciniis lineari-subulatis æqualibus deciduis. *Corolla* hypocraterimorpha tubo calyce duplo longiore vix superne dilatato, limbo expanso fere 5-partito, lobis obovatis obtusissimis. *Antheræ* oblongæ, ad faucem subsessiles subinclusæ. *Stigmata* 2 carnosa. *Fructus* capsularis *(Bacca? ex Sweet)* obovato-oblongus nudus cicatrice apice notatus bilocularis, septicido ab apice ad basin dehiscens. *Placenta* elongata demum a dissepimento libera. *Semina* minuta dense sursum imbricata, ala membranacea dentata, ad basin brevissima, apice latiore.—Arbuscula *Asiatica.* Rami *teretes pubescentes.* Folia *elliptica acumine brevi, petiolata, supra glabra, subtus in nervis villosa.* Stipulæ *utrinque solitariæ basi latæ apice cuspidatæ petiolo longiores.* Corymbus *terminalis multiflorus, ramulis oppositis, ultimis apice trifloris.* Corollæ *roseæ carnosulæ. D C.*

Specific Character and Synonyms.

LUCULIA* *gratissima;* foliis ellipticis acuminatis multinerviis supra glabris subtus nervisque villosis, laciniis calycinis lanceolatis acutis, corollæ lobis rotundatis.

LUCULIA gratissima. *Sw. Brit. Fl. Gard. t.* 145. *De Cand. Prod. v.* 4. *p.* 358.

CINCHONA gratissima. *Wall. Tent. Fl. Nep. t.* 31. *Fl. Ind. v.* 2. *p.* 154.

MUSSÆNDA Luculia. *Ham. in Don Prodr. Fl. Nep. p.* 139.

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* So called by Mr. SWEET, it would appear, from *Luculi Swa*, the Naware name.

It is impossible, says Dr. WALLICH, to conceive any thing more beautiful than this tree, when covered with its numerous rounded panicles of pink-coloured, very fragrant, large blossoms. It is a native of Nepal and Silhet, in the former country growing in great abundance on Nag-Urjooro and some of the other smaller hills in the valley; also at Bechiako and Koolakan; it delights in exposed, rather naked situations, flowering, according to the locality in which it is found, nearly the whole year through.

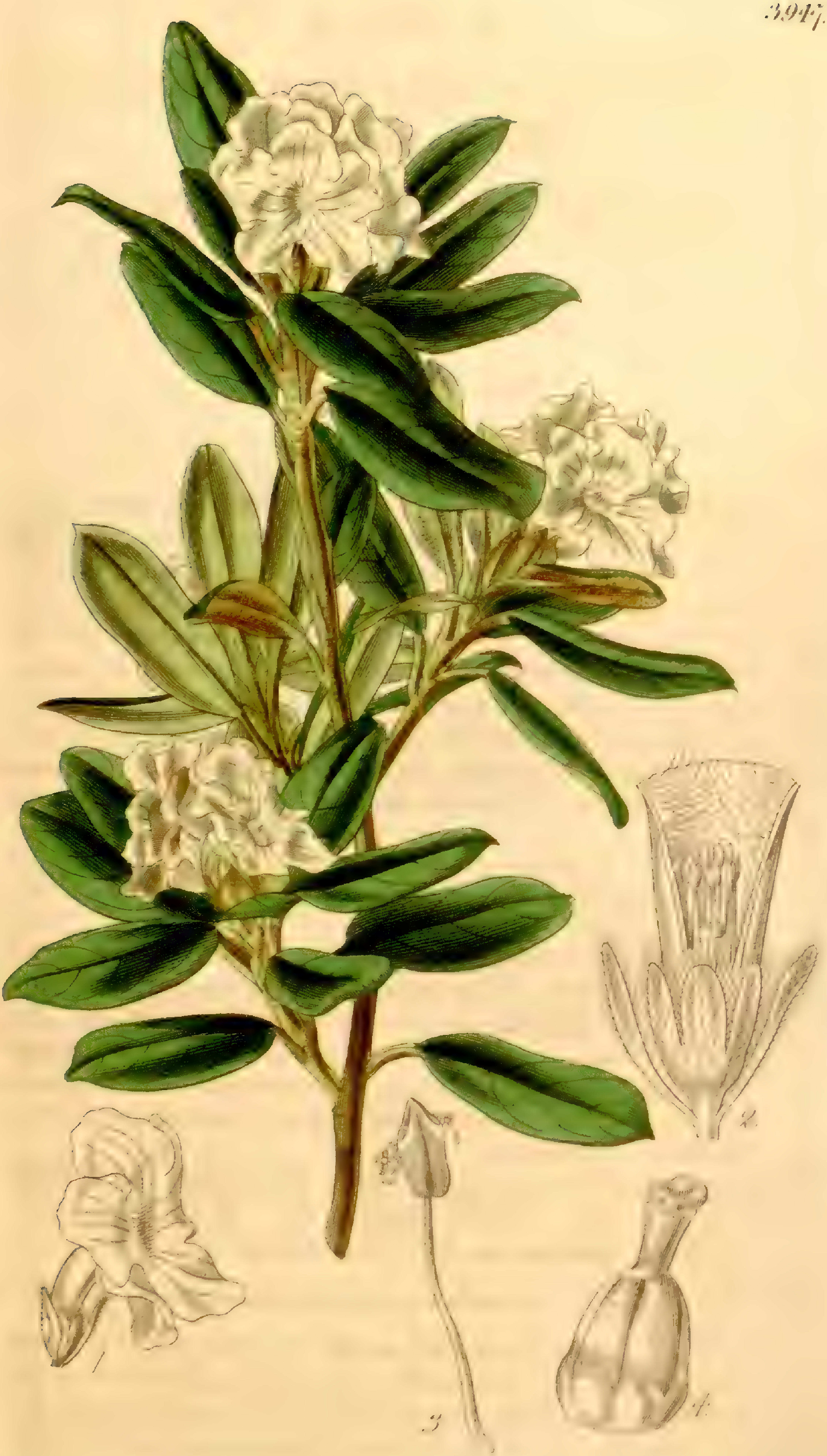
I can well conceive that the plant deserves this praise, from what I saw of it, in a comparatively small specimen, in the greenhouse of Mrs. MARRYATT, at Wimbledon; and still more so from the account with which Mrs. WRAY has favored me of the individual from which the specimen here figured was taken.

"The plant of LUCULIA from which the drawing was made, had been cultivated by us in a pot for two years, and with tolerable success; but observing it to look very sickly, I determined to try the experiment of putting it into a large box, of which there are several, fitted at the back of a house, intermediate between the greenhouse and stove, and designed for climbers. This was done in March, and the plant soon began to show, by its vigorous shoots, how well this change of treatment suited its nature. By the month of October, it had attained a height of six feet and a half, each shoot being terminated by a head of flowers, similar to what was sent to you; the larger bunches, of which there were twenty-four, measuring two feet in circumference, besides thirty smaller ones.

"I am inclined to believe, that the atmosphere of a stove is too hot and close, and that of the greenhouse too cold and damp, considering the late season at which the LUCULIA flowers; whereas, in the place to which it was removed, we frequently give fire heat by day during autumn, thus allowing air to be admitted at the same time, and the windows to be opened without detriment from the external cold. The soil in which it grows consists of a mixture of loam and leaf mould. I am not aware that any other peculiar management is required, except daily syringing during its growth, to destroy the red spider, to whose attacks it is extremely liable."

DESCR. A small *tree*, in its native country about sixteen feet high. *Bark* thin, brownish, uneven. *Branches* opposite; while young, reddish and downy. *Leaves* opposite, spreading, ovate-oblong, acute at the base, acuminate at the point, four to six inches long, somewhat coriaceous, glabrous, villous on the ribs beneath. *Petiole* rounded, short. *Stipules* lanceolate, with a long point, half an inch long, very deciduous. *Panicles* large, terminal on the numerous *branches*, with decussate ramifications, bearing numerous linear, deciduous *bracteas*. *Flowers* numerous, large, showy, very fragrant, of a beautiful pink or rose colour, forming an almost rounded mass upon the panicle. *Germen* inferior, obovate, downy. *Calyx-segments* longer than the germen, erect, lanceolate, unequal, green tinged with red, deciduous. *Corolla* salver-shaped: the *tube* slender, longer than the calyx; the *limb* spreading, of five deep, rounded, close-placed lobes, imbricated in æstivation. *Stamens* inserted into the tube: the yellow *anthers* projecting a little beyond the tube. *Style* filiform. *Stigma* large, bipartite, included within the tube.

3947.



Fitch del.

Pub by S. Curtis Glazenwood Essex June 1. 1842.

RHODODÉNDRON ANTHOPÓGON. BEARDED RHODODENDRON.

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Class and Order.

DECANDRIA MONOGYNIA.

(Nat. Ord.—ERICEÆ.)

Generic Character.

Calyx 4-partitus. *Corolla* infundibuliformis, rarius campanulata aut rotata, nunc regularis, semper 5-loba. *Stamina* 10 (rarius abortu 6—9) corolla non adnata, ante et inter lobos sita, sæpius declinata exserta. *Antheræ* poris 2 terminalibus dehiscentes. *Capsula* 5-locularis 5-valvis, aut 10-locularis 10-valvis septicido-dehiscens. *Semina* axi columnæ angulo adnata, compresso-scobiformia subulata.—Frutices *rarius* arbores. Folia *sempervirentia petiolata integerrima.* Flores *in corymbos terminales dispositi.* Alabastra *floralia squamosa.* Corollæ *conspicuæ purpureæ albæ vel flavæ. D C.*

Specific Character and Synonyms.

RHODODENDRON *anthopogon;* ramulis pubescentibus ferrugineo-lepidotis, foliis sempervirentibus ellipticis subtus dense lepidotis demum ferrugineis, capitulis strobiliformibus, floribus pentandris, calyce 5-partito segmentis oblongis, corolla hypocrateriformi, limbo 5-partito segmentis subrotundis fauce lanatis, staminibus inclusis. *Graham.*

RHODODENDRON anthopogon. *Don, Fl. Nepal.* 153. *Wall. Cat. No.* 759. *Royle, Illust. t.* 64. *D C. Prodr. v.* 7. *p.* 725. *Graham in Ed. Phil. Journ. Sept.* 1841.

The Countess of ROSSLYN has taken great pains to form, at Dysart House, an unusually extensive collection of the different species and superb varieties of RHODODENDRON, and placed there, under the judicious management of the gardener, Mr. BLAIR, they thrive and flower in a manner cer-

tainly not surpassed in any collection in Britain. Among these, the rare species now described forms a dense bush. It was obtained from Messrs. LODDIGES five years ago, and during each of the last three years it has flowered in the open border abundantly in April, and partially in August. It is a native of the Himalaya mountains, and extends, as we are informed by Dr. ROYLE, along the range from Nepal to Cashmere, never descending lower than 9,000 feet above the level of the sea, but rising to an elevation exceeding 14,000 feet, with the last remains of woody plants.

DE CANDOLLE notices the conflicting statements, regarding the number of stamens, by different authors. The number may vary, but I am quite certain that in the blossoms of the individual which I examined there were uniformly five. The native specimens which I possess from Dr. WALLICH have no perfect flowers. The cultivated plant differs from Dr. ROYLE's figure in being of a much paler colour, in the segments of the corolla being far broader, overlapping, and undulate, and in the bracts being rusty rather than yellow.

DESCR. *Shrub* (in the specimen described fifteen inches high, eighteen inches in diameter) much branched, compact; *branches* pubescent, and covered with brown scales. *Leaves* (an inch and a half long, half an inch broad) collected towards the extremities of the branches, petiolate, elliptical, entire, coriaceous, evergreen, mucronulate, densely covered below with scales, which, at first, are pale green, but soon become rusty, glabrous, dark green and shining above, having a strong middle rib, and a few oblique, sparingly reticulated veins channelled above; *petiole* erect, rounded on the back, channelled in front, scaly like the branches. *Capitula* terminal, encased by a few large, ovate, keeled, rusty, ciliated *bracts*, the dilated petioles of leaves, of which the diminished laminæ are seen upon the apices of some of the leaves; similar bracts, but rather smaller and less keeled, are repeated on the outside of each pedicellate flower in the capitulum, and on each side at the base of every pedicel there is an elongated, narrow, spathulate *bract*, stretching a little way beyond the calyx. *Calyx* as long as the pedicel, five-partite, the segments green, elliptical, tomentous at the edges, the three outer the larger. *Corolla* yellowish-white, salver-shaped; the *tube* cylindrical, curved outwards, three to four times as long as the calyx, glabrous; *limb* very oblique, five-partite; *lobes* subrotund, overlapping, undulate, shorter than the tube, glabrous, without nectary; *throat* closed by a dense tuft of white wool, which extends fully halfway down the tube. *Stamens* five, hypogynous, erect, included, longer than the calyx; *filaments* slender, glabrous; *anthers* adnate, erect, swelling upwards, opening by two pores at the apex, without awns; *pollen* white, *granules* minute, round. *Pistil* shorter than the stamens; *stigma* capitate, obscurely lobed, green, covering the oblong apex of the stout, compressed, clavate style; *germen* five-lobed, five-celled, the dissepiments opposite to the stamens, which lie in the furrows between the lobes. *Ovules* numerous, upon linear central placentæ, which project their edge into the cells. *Graham.*

3948.

W Fitch del.

Pub. by S. Curtis, Glazenwood Essex, June 1 1842.

Swan Sc.

Fúchsia integrifólia. Entire-leaved Fuchsia.

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Class and Order.

Octandria Monogynia.

(Nat. Ord.—Onagrariæ.)

Generic Character.

Calycis tubus basi ovario adhærens, superne productus in tubum cylindraceum 4-lobum post anthesin articulatim deciduum. *Petala* 4 summo tubo inserta lobis alterna, rarius o. *Stamina* 8. *Ovarium* glandula urceolata coronatum. *Stylus* filiformis. *Stigma* capitatum. *Bacca* oblongo- aut ovato-globosa 4-locularis 4-valvis polysperma. —Frutices. Folia *sæpius opposita.* Pediculi *axillares* 1-*flori, interdum ad apices ramorum racemosi.* Flores *sæpius nutantes, rubri rarius albi, interdum* 5-*fidi* 10-*andri.* *D C.*

Specific Character and Synonyms.

Fuchsia *integrifolia;* caule sæpe prostrato radicante, foliis ellipticis oppositis ternisque acuminatis subdentatis glabris subtus purpurascentibus, stipulis transversim oblongis carnosis deflexis apiculatis, apiculo sphacelato, pedunculis axillaribus solitariis unifloris, laciniis calycinis acuminatis petala cuneata duplo excedentibus, bacca oblonga.

Fuchsia integrifolia. *Cambass. in St. Hil. Fl. Bras. Merid. v.* 2. *p.* 273.

Fuchsia affinis. *Cambass. l. c.* 2. *p.* 274.

Fuchsia pyrifolia. *Presl. Symb. Bot. v.* 2. *p.* 19. *t.* 65.

Fuchsia radicans. *Miers in Lindl. Bot. Reg. Suppl.* 1841. *p.* 78.

Mr. Miers has the merit of making this beautiful Brazilian Fuchsia known to Botanists of this country and to cultivators, by the introduction of it to our greenhouses from

the Organ mountains. Plants have likewise been liberally distributed by him, and we owe the specimen here figured to the kindness of our good friend, Mr. FERGUSON, who sent it from the Royal Botanic Garden Belfast, in the month of October, 1841. Native specimens are amongst the earliest of Mr. GARDNER's Brazilian Collections (n. 375), and he has there remarked, "This plant is very common in the Organ mountains. I have not met with it lower than 3,000 feet above the elevation of the sea, but from that altitude, to about 6,000 feet, it abounds. In the Virgin forests it is most common by the sides of streams, climbing up the stems of the large trees, and flowering among the branches. I have seen it reach to a height of forty or fifty feet, giving the trees to which it has attached itself, the appearance of being FUCHSIAS themselves. At an elevation of 5 to 6,000 feet it loses its climbing habit, and becomes a bush, varying from two to four feet high."—In this latter state it must have a good deal the appearance of F. *macrostemma*, which, Dr. LINDLEY observes, the flowers considerably resemble. The leaves, however, are much larger, and the stipules afford a very important character. Four species of Brazilian FUCHSIÆ are described by CAMBASSÉDES, in ST. HILAIRE's Fl. Bras. Merid., two of which we think may with safety be considered the same as that here figured, although the rooting character is not mentioned. Mr. MIERS, in his obliging communication to us (as well as Dr. LINDLEY), lays much stress on the petals being scarcely longer than the tube of the calyx, and on the coalescing of the segments of the limb; but these characters do not exist in Mr. GARDNER's native specimens.

The rooting character of Mr. MIERS' plant induced him to give the name of *radicans* to this species; but our growing plant does not exhibit this property, and Mr. GARDNER, writing from Pontrilas House, while on a visit to Mr. BENTHAM, says, "I have been making a careful comparison of my species from the Organ mountains with POHL's drawing and description of F. *pyrifolia*, as well as with F. *integrifolia* and F. *affinis* of CAMBASSÉDES, in which I was assisted by Mr. BENTHAM, and we have both come to the conclusion, that they are all one and the same species, for there is no character by which to distinguish them. Indeed, CAMBASSÉDES says, he believes his *affinis* to be only a variety of *integrifolia*, and PURSH remarks of his species that it resembles *affinis*. The climbing and rooting propensities are, I know, from observations made on the plants whence my specimens were obtained, only called forth under peculiar circumstances.

The FUCHSIA *pubescens* and *montana* of CAMB. in ST. HIL. Fl. Bras. Merid. Tab. 134 and 135, have smaller leaves than the present species, and more toothed, and seem scarcely distinct from each other. To one or other of them may, assuredly, be referred the QUELUSIA *regia*, Vell. Fl. Flum. v. 4. tab. 6.

DESCR. The habit of the plant, and the rooting character of the stem are described above. The leaves are opposite in our specimens, but as Mr. GARDNER informs us, frequently ternate, from three to five inches long, elliptical, obtuse or subcordate at the base, acuminate and toothed towards the extremity, glabrous, except in the nascent foliage, deeply tinged with purple beneath, and on the midrib and petiole, which latter is half an inch long, grooved above. *Flowers* of a beautiful crimson. *Stamens* much protruded. *Ovary* and *young fruit* oblong.

Fig. 1. Stipule. 2. Portion of the Rooting Stem, from a drawing and specimens sent by Mr. MIERS :—*nat. size.*

3949.

W. Fitch del.

Pub. by S. Curtis Glazenwood Essex June 1.1842.

Swan sc.

(3949)

BÉRBERIS NERVÓSA. STRONG-NERVED BARBERRY.

* *

Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—BERBERIDEÆ.)

Generic Character.

Sepala 6 squamis 3 extus stipata. *Petala* 6 intus biglandulosa. *Stamina* edentula. *Bacca* 2—3-sperma. *Semina* 2, rarius 3 ad basim lateraliter inserta, erecta, oblonga, *testa* crustacea, *albumine* carnoso, *cotyledonibus* foliaceis ellipticis, *radicula* longa apice capitellata.—Frutices, *foliis primariis abortivis et in spinam sæpius mutatis, secundariis in axillis fasciculatis.* Flores *in omnibus flavi.* *D C.*

Specific Character and Synonyms.

BERBERIS *nervosa;* foliis elongatis 5—6-jugis, jugo inferiore a petioli basi distante, foliolis ovato-acuminatis repande spinoso-dentatis basi 3—5-nerviis, racemis elongatis, filamentis 2 dentatis.

BERBERIS nervosa. *Pursh, Fl. Am. Sept. v.* 1. *p.* 219. *t.* 5. (excl. the flowers, which belong to B. *Aquifolium.*) *Hook. Fl. Bor. Am. v.* 1. *p.* 29. *Torr. et Gray, N. Am. Fl. v.* 1. *p.* 51.

MAHONIA nervosa. *Nutt. Gen. Am. v.* 1. *p.* 202. *De Cand. Prodr. v.* 1. *p.* 108.

BERBERIS glumacea. *Spreng. Syst. Veget. v.* 2. *p.* 120. *Lindl. Bot. Reg. t.* 1425.

MAHONIA glumacea. *De Cand. Prodr. v.* 1. *p.* 109.

One of the many beautiful plants, now a great ornament of our gardens and shrubberies, for which we are indebted to the late enterprising DOUGLAS. He sent seeds of it to the Horticultural Society in 1822, whence it has been liberally distributed. It bears its bright yellow, copious spikes of blossoms, which are beautifully nestled in the foliage, in the very early spring. Our figure was made in 1841, at the Glasgow Botanic Garden, from plants reared from seeds sent from the Columbia by Mr. TOLMIE. It is common in shady pine forests on the coast of the Pacific, from N. lat. 40° to 49°, but is not found East of the woody country that skirts the coast.

I retain the original name of Mr. PURSH ; for, although he erred in representing the flowers of B. *Aquifolium* (separate indeed from the leafy branch) on the same plate with the foliage of B. *nervosa*, there can be no question of the identity of his plant.

DESCR. B. *nervosa* forms a beautiful evergreen *shrub*, of low stature, but bearing many short *branches* clothed with long pinnated foliage. These *branches* have numerous large, imbricated, lanceolate, acuminate, and pungent brown scales or *stipules*, and similar scales clothe the base of the peduncles. *Leaves* varying much in length, from six inches to a foot : the petiole below is for some inches naked, the rest having from three to six or seven ovate, sessile, acuminated, harsh, rigid *leaflets*, with an odd one, strongly nerved, the nerves three to five from the very base, the margins repando-dentate, the teeth sharp and unequal, almost spinulose. *Racemes* four to five inches long, two or three from one point, clothed with densely placed, bright yellow *flowers*, from the apex almost to the base. *Pedicels* very short, each subtended by a small, deciduous bractea. *Sepals* unequal, three outer ones small, and often tinged with red, three inner larger, all ovate. *Petals* equal, oval, two-toothed at the apex, and with two small glands near the base. *Stamens* with a tooth on each side below the anther, as in this "MAHONIA"-group of BERBERIS, but which, as well as the glands of the petals, are, unfortunately, omitted by the artist, an omission not detected till it was too late to have it corrected.

Fig. 1. 2. Front and back view of a Flower. 3. Petal and Stamens: *magnified* (the teeth of the Filament and the Glands of the Petal are, through carelessness, omitted).

3950.

W. Fitch del.

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Swan Sc.

Pimeléa spectábilis. Showy Pimelea.

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Class and Order.

DIANDRIA MONOGYNIA.

(Nat. Ord.—THYMELEÆ.)

Generic Character.

Perianthium infundibuliforme, limbo 4-fido, fauce esquamata. *Stamina* duo fauci inserta laciniis exterioribus opposita. *Stylus* lateralis. *Stigma* capitatum.—Frutices. Folia *opposita, raro alterna.* Flores *capitati, terminales, foliis involucrantibus sæpe dissimilibus, interdum connatis, rarius spicati vel axillares, quandoque dioici.* Perianthii tubus *in plerisque medio articulatus, articulo inferiore persistenti. Br.*

Specific Character and Synonym.

PIMELEA *spectabilis;* foliis oppositis lineari-oblongis acutis sessilibus uninerviis glaucis ramisque glaberrimis, capitulis terminalibus multifloris, perianthii limbo sericeo tubo piloso, involucri foliolis late ovatis acutis utrinque glabris subcoloratis capitulum æquantibus.

PIMELEA spectabilis. *Lindl. Bot. Reg. Append. p.* 41.

This beautiful species was received at the Botanic Garden, Edinburgh, in 1839, from the rich collection of Mr. Low of Clapton, and flowered abundantly, and for the first time, in the greenhouse, in March, 1841. It was said to have crimson bracts; but, though blooming in fine clear weather, there is only a slight reddish tinge perceptible at the extremities; nor has any part of the flower, except the tips of the unexpanded perianth, the anthers, and germen, the least approach to colour of any kind. This may cause some doubt as to the species being identical with P. *spectabilis* of LINDLEY; which, he says, has pink flowers; but in other respects it agrees with the character. In no species in cultivation, nor yet native specimens, so far as I have seen, are the capitula nearly so large as in this.

Descr. *Stem* woody, erect; *bark* brown, and marked by the fallen leaves. *Branches* long, straggling, and pendulous in the cultivated specimen, which is, perhaps, preternaturally luxuriant, for in a native specimen in Sir William Hooker's Herbarium they are erect and shorter, and the whole plant does not exceed sixteen inches in length—the cultivated one described is exactly one foot more, the branches subverticillate, the lower ones being one foot long, the upper three inches, everywhere, as well as the stem, glabrous. *Leaves* opposite, narrow, linear-oblong, gradually broader towards the extremity of the branches, acute, mucronulate, glaucous, glabrous, indistinctly veined; *midrib* channelled below, flat above. *Capitulum* terminal, very large; *involucre* much broader than the leaves, and (in the specimen described) of a paler colour, occasionally slightly reddened at the apices, cordate-ovate, acute. *Pedicels* short, hairy. *Perianth* equal to the involucre, white, before expansion reddish at the apex, everywhere hairy except on the inside of the tube; *hairs* in the middle of the tube long and spreading, elsewhere short and subappressed; *tube* striated at its base; *limb* spreading, segments ovato-lanceolate, becoming reflexed in the sides, and afterwards undulate. *Stamens* at first erect, afterwards reflected along the limb, than which they are shorter; *filaments* colourless, glabrous; *anthers* pale yellow, linear. *Pistil* longer than the perianth, erect; *stigma* small, capitate; *style* filiform, colourless, oblique upon the apex of the germen; *germen* green, glabrous, keeled on one side. *Ovule* solitary, pendulous. *Graham.*

3951.

W. Fitch Del.

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Swan Sc.

EPIDÉNDRUM SKINNÉRI. MR. SKINNER'S EPIDENDRUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala patentia subæqualia. *Petala* sepalis æqualia vel angustiora, rarius latiora, patentia vel reflexa. *Labellum* cum marginibus columnæ omnino vel parte connatum, limbo integro vel diviso, disco sæpius calloso costato vel tuberculato; nunc in calcar productum, ovario accretum et cuniculum formans. *Columna* elongata; clinandrio marginato, sæpe fimbriato. *Anthera* carnosa, 2—4 locularis. *Pollinia* 4, caudiculis totidem replicatis annexa.—Herbæ *epiphytæ (Americanæ), caule nunc apice vel basi pseudobulboso, nunc elongato apice folioso.* Folia *carnosa, rarissime venis elevatis striata.* Flores *spicati, racemosi, corymbosi vel paniculati, terminales vel laterales. Lindl.*

Specific Character and Synonyms.

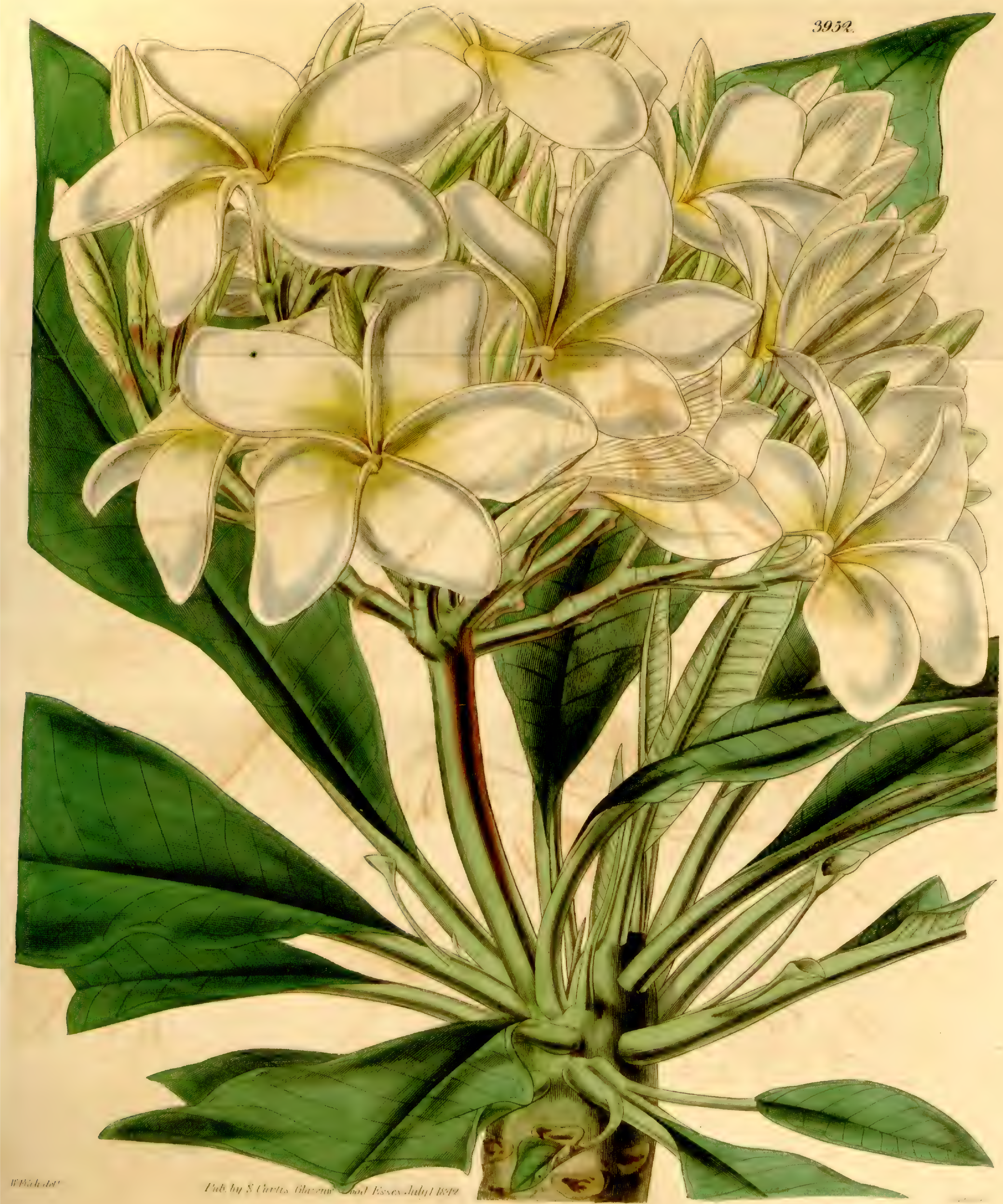
EPIDENDRUM *Skinneri;* foliis distichis lanceolatis acuminatis, caule apice longe aphyllo squamoso, racemo cylindraceo multifloro, floribus cernuis, sepalis lineari-lanceolatis, petalis ovalibus (seu ovali-lanceolatis) acutis, labello ovato-acuminato integerrimo basi callo sulcato cristato. *Lindl.*

EPIDENDRUM Skinneri. *Batem. MSS. Lindl. Bot. Reg. t.* 1881.

From the rich and well cultivated collection of DILLWYN LLEWELYN, Esq., of Penllegare, Glamorganshire. It is a native of Guatemala, and first flowered in this country in the stove of **James Bateman**, Jun., Esq., who named it in compliment to Mr. **Skinner**, its discoverer; and truly worthy it is to bear the name of a gentleman who has for so many years, and so unweariedly, exerted himself to enrich our hothouses with the choicest **Orchideæ** of one of the most fertile provinces in tropical America. It is spoken of as a most free flowering species, if it be but well supplied with heat and moisture.

Descr. The *stems* grow in a tufted manner, erect, at first rounded and leafy, scarcely a foot high, and then terminating in the long, slender *peduncle* with its beautiful raceme of flowers. *Leaves* lanceolate, five to six inches long, rather fleshy, their bases sheathing the whole stem: —after flowering the stem swells and becomes a narrow, elongated pseudo-bulb, clothed with the sheathing bases of the leaves. *Bracteas* subulate at the base of the very slender, pedicelliform germen. *Flowers* of a rich deep lilac-purple. *Sepals* and *petals* spreading, the former narrow-lanceolate, acuminate, the latter broadly lanceolate, almost ovate, acute. *Lip* ovate, acuminate, quite entire, united with the column, near the middle of the latter, having a yellow, fleshy crest at the base, with five deep furrows. *Column* dilated upwards, with two rounded, obtuse, projecting wings. *Anther* hemispherical.

Fig. 1. Lip and Column. 2. Column, from which the Lip is removed: —*magnified.*



W. Fitch del.

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(3952)

PLUMIÉRIA ACUMINÁTA. SHARP-LEAVED PLUMIERIA.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—APOCINEÆ.)

Generic Character.

Contorta. *Calyx* quinquepartitus, obtusus, minimus. *Corolla* infundibuliformis, tubo longo sensim ampliato; limbo quinquepartito, erecto-patente, laciniis ovato-oblongis, obliquis. *Filamenta* e medio tubi, antheris conniventibus. *Styli* vix ulli, *stigmate* duplici acuminato. *Folliculi* longi acuminati, ventricosi, patentes aut deorsum flexi, nutantes. *Semina* numerosa, oblonga, membranæ majori ovatæ (crenato-dentatæ) ad basin inserta, imbricata.

Specific Character and Synonyms.

PLUMIERIA[*] *acuminata;* foliis planis cuneato-lanceolatis acuminatis, cymis terminalibus multifloris, corollæ limbi laciniis oblique ovatis obtusis.

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[*] So named in honor of one of the most distinguished Botanists of the seventeenth century, CHARLES PLUMIER (hence PLUMIERIA and not PLUMERIA is the right orthography), a French ecclesiastic of the order of the Minims, who undertook no less than three different voyages to the West Indies, and was about to be sent on a fourth when he died at Cadiz of pleurisy in 1704, in his fifty-eighth year. The principal works we have from him are his " Description des Plantes de l'Amérique, a folio, with one hundred and eight plates from outline drawings made by PLUMIER himself; chiefly consisting of Ferns, Peppers, Aroideæ, and Passion-flowers. This appeared in 1693, and was followed by his " Nova Plantarum Americanarum Genera," in quarto, in 1703, and contains one hundred and three new Genera. The Ferns of his first book were afterwards republished, with many additional figures, in his great and very useful work, " Traité des Fougères, &c., de l'Amérique, which appeared in 1705, with one hundred and seventy-two excellent plates. Many of his drawings were half a century after his death published by J. BURMANN in the " Plantæ Americanæ à C. Plumier selectæ et a J. Burmanno editæ, in fol., 1755." It would appear also that Father PLUMIER, in the " Journal des Sciences" in 1694, first showed that the Cochineal was of animal and not vegetable nature. See Sir JAMES E. SMITH's Memoir of PLUMIER in Rees' Cyclopædia, for much more interesting information relative to this distinguished Botanist and excellent man.

Plumieria acuminata. *Ait. Hort. Kew. ed.* 2. *v.* 2. *p.* 70. *Roxb. Fl. Ind. vol.* 2. *p.* 20.
Plumieria acutifolia. *Poir. Encyc. Meth. Suppl. II. p.* 667. (according to Steudel.)
Plumieria obtusifolia. *Lour. Fl. Cochin. v.* 1. *p.* 144. (according to Steudel.)
Flos convolutus. *Rumph. Amb. vol.* 4. *p.* 85. *tab.* 38.

Those who have a good stove and sufficient height should not fail to cultivate this beautiful tropical-looking plant. The foliage is large and handsome; the flowers copious, each three inches in diameter, and so deliciously fragrant that a very large house is scented throughout by a very few of the expanded flowers, and this scent is retained by the corolla for some time after it has fallen from the tree. These blossoms continue expanding in succession upon the same cyme for a period of many weeks. The whole plant is full, as Dr. Roxburgh says, of a tenacious white juice, which exudes plentifully on being wounded. It is from this circumstance, probably, that the French call the species of this Genus "Franchipanier," *Franchipane* being coagulated milk. It flowers throughout the summer months in the stove of the Royal Botanic Garden, and till late in autumn. During the winter months even the leaves are deciduous, and the bare branches are then, it must be acknowledged, very unsightly. It loves heat, and with us the pot is always plunged in tan.

Great difficulty attends the discriminating the different species of Plumieria: with regard to the present there can be no doubt, of its being the original plant so named in the second edition of the "Hortus Kewensis." It is a native of the East Indies, and was introduced to the Royal Gardens by Sir Joseph Banks, in the year 1790.

Descr. A small *tree*, from ten to fifteen or twenty feet high, branched: the *branches* swollen and very succulent towards the extremities, and bearing the foliage only at the very apex: below are the scars of former years' leaves. *Leaves* often a foot or more long in the blade, cuneato-lanceolate, of a rich deep green, acuminate, quite entire, plane, with numerous parallel nerves, tapering at the base, there channelled, and gradually passing into a thick, fleshy petiole. This petiole is scarcely two inches long, channelled above, and not unfrequently near the middle, bearing one on each side, two small, unequal, cucullate leaves upon comparatively long petioles, as shown in our figure. Below the present year's foliage are the scars from whence the previous year's leaves have fallen. From among these leaves, at the apex of the branches, arises the *petiole*, four to five inches long, thick, rounded, glabrous, (as is every part of the plant,) soon dividing into a large cyme of fragrant *flowers*. *Peduncles* and *pedicels* jointed. *Calyx* small, cup-shaped, with five small, blunt, erect teeth. *Corolla* with a straight tube and five large, spreading, obliquely ovate, obtuse segments, yellow below, the upper half white: the outside also white or cream-coloured, faintly streaked with a darker hue. The mouth of the corolla is much contracted, and the tube entirely includes the *stamens* and *pistil*.

3953.

W Fitch del.^t

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[illegible]

RONDELÉTIA ODORÁTA. SWEET-SCENTED RONDELETIA.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—RUBIACEÆ.)

Generic Character.

Calyx dentibus 5 profundis acutis, persistens. *Corolla* infundibuliformis, tubo cylindrico, calyce longiore apice (sub) ventricoso, limbo plano reflexo laciniis (sub) rotundatis (planiusculis). *Antheræ* non prominentes. *Stigma* bifidum, (obtusum, *Linn.*) *Capsula* subglobosa bacciformis, calyce coronata, bi- (et 4-) locularis, apice in partes 2 dehiscens, polysperma (et solitaria semina). *Roem. et Sch.*

Specific Character and Synonyms.

RONDELETIA* *odorata;* foliis vix petiolatis ovatis aut subcordatis acutiusculis, supra sparse scabris, subtus pallidioribus in nervis tantum scabris, corymbis terminalibus. *D C.*

RONDELETIA odorata. *Jacq. Amer. p.* 59. *t.* 42. *Linn. Sp. Pl. p.* 1671. *Humb. et Kunth, Nov. Gen. Am. v.* 3. *p.* 394. *De Cand. Prodr. v.* 4. *p.* 408.

(β.) floribus flavescentibus. R. odorata. *Lindl. Bot. Reg. t.* 1905.

A native, it is said, of Havana, and of Mexico. Our specimen was communicated by Dr. GRAHAM from the Edinburgh Botanic Garden in November, 1841, and its flowers were truly brilliant and of a vermilion colour, as they are

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* So named by Father PLUMIER, in memory of WILLIAM RONDELET, a physician of Montpelier; well known for his work on Fishes, and who also studied Botany in connection with the Materia Medica.

described to be in its native country; so that I cannot but look upon the plant figured by Dr. Lindley in the Botanical Register above quoted, with more of yellow than red in their colour, as a variety. The fragrance, however, as that Botanist justly observes, is not very powerful. Its flowers render it a great ornament in the stove, where alone it can be cultivated successfully.

Descr. *Stem* straggling, branched, the *branches* rounded, downy. *Leaves* in opposite and rather remote pairs, ovate, acute or somewhat acuminate, entire, waved, upon a very short *petiole,* harsh with down above, paler and less downy beneath, where the down is principally confined to the nerves. *Stipules* lanceolato-subulate, green. *Corymbs* terminal, trichotomously compound; *bracteas* at the setting on of the branches, linear-acuminate, hairy. *Pedicels* hairy, and the calyx which has a short, obovate, green tube, and five linear, erect, red segments, longer than the tube: within these segments, at the base of each, is a pair of ovate, dark-brown glands, and a circle of erect, chaffy hairs. *Corolla* bright vermilion, salver-shaped; the *tube* narrow, longer than the calycine segments; the *limb* spreading, of five rounded segments: at the mouth is a bright yellow projecting ring or cup. *Stamens* included within the tube: *anthers* sessile. *Style* filiform, as long as the tube of the corolla. *Stigma* club-shaped, bifid at the apex.

Fig. 1. Calyx and Pistil. 2. Corolla laid open. 3. The Ovary laid open. 4. Portion of the Mouth of the Calyx, with part of the Circle of Hairs and of the Glands:—*magnified.*

3954

W Fitch del. Pub. by S. Curtis Glazenwood Essex July 1 1842 Swan

SOLÁNUM BALBÍSII; *var.* bipinnáta. BALBIS' NIGHTSHADE; bipinnate-leaved *var.*

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—SOLANEÆ.)

Generic Character.

Calyx monophyllus, persistens. *Corolla* monopetala, rotata. *Antheræ* oblongæ, apice poris duobus dehiscentes. *Bacca* bi- tri- quadrilocularis.

Specific Character and Synonyms.

SOLANUM *Balbisii;* caule fruticoso hirsuto aculeato, foliis pinnatifidis bipinnatisque, laciniis acutis sinuato-dentatis, racemis cymosis lateralibus terminalibusque.
(α.) floribus albis, foliis pinnatifidis.
SOLANUM Balbisii. *Dunal, Solan. p.* 232. *t.* 3. *f. D.* (for the other Synonyms see our Tab. 2828.)
(β.) floribus purpureis, foliis pinnatifidis. *Hook. in Bot. Mag. t.* 2828.
(γ.) floribus albis, foliis bipinnatis. (Tab. nostr. 3954.)

Received from the Royal Edinburgh Botanic Garden, by the favour of Dr. GRAHAM; to whom the seeds were sent by Mr. TWEEDIE from Buenos Ayres. As a species, it is assuredly a very variable plant, not only in the form of the foliage, but still more so in the colour of the blossoms. These latter are white or cream-colour; or pale blue or purple, as shown in our Tab. 2828. Our present variety has extremely pale flowers, but the leaves are very much divided, so as instead of being simply pinnatifid, they are truly bipinnate. All the varieties are showy, and well worthy of cultivation in the stove, or even in a warm greenhouse.

The

Fig. 1. Calyx and Pistil. 2. Ovary:—*magnified.*

The Honorable and Rev. Mr. Herbert has requested us to give place in an early number to the following

CROCORUM SYNOPSIS.

CORRIGENDA.

Supra 3863 ad calcem. 6. Lævigatus. *dele* In Erymantho nive fusâ statim exortus; *et lege,* In insulâ Cythno (hodie Thermia) et Milonis parte occidentali juga *schistosa* tenet.

ADDENDA.

1. Biflorus. Passim circa sinum Saronicum teste Bory, Voy. d. Mor.

13. Sieberianus. In summo Taygeti jugo nive fusâ statim exoritur, usque ad 6,000 circiter ped. alt. m. Maio floridus.

C. candidus; *Clark Trav., &c.*, 1812. Foliis lanceolato-linearibus flore brevioribus, stigmatibus antheras subæquantibus profundissimè multipartitis, radicum tunicâ fibroso-costatâ, corollæ laciniis ellipticis.—*In monte Gargaro m. Martio floridus.* Eundem esse cum croco seriùs *C. lacteus concolor* dicto (lagenæflori var.) ex tunicis fibroso-costatis conjicio.—C. vernus, *Clark ib.* in Gargaro inventus forsan est Sieberianus teste Gay Troadis incola.—C. aureus *Clark ib.* forsan Gargaricus. Crocorum millia millia candidorum, violaceorum, et luteorum, in dumetis (forest) inter Bolim et Geridim seu Gherizam m. Aprili florida tribus prædictis in Gargaro forsan conformia sunt. Ex eâ quoque regione forsan C. luteus provenit.—C. aureum a Sibthorp in Cycladibus, non in Peloponeso, inventus, neque a Bory in Cycl. occidentalibus repertus, Cyclades occidentales Chium, &c., habitare puto.—C. insularis terram in Corsicâ septentrionali *schistosam* ("schiste talqueux decomposé." *Rom.*) occupat; flore violaceo, sepalorum colore exteriore variabili ex luteo pallescente plùs minùs plumeo-striato, fauce lævi numquam lutescente, magnitudine cormi, foliorum, florum, variabili.—C. minimus var. quædam C. insularis inter minores, nescio quâ certâ ratione secernenda, mihi videtur. *W. H.*

3955

W Fitch Del. Pub. by S. Curtis Glazenwood Essex July 1 1842. Swan Sc.

ODONTOGLÓSSUM GRÁNDE. GREAT ODONTOGLOSSUM.

* * *

Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala lateralia, patula, libera. *Labellum* planum, unguiculatum, ascendens, limbo reflexo diviso dentato apice angustato, basi concavum crista bilamellata raro fimbriata sæpius antice bidentata auctum. *Columna* elongata, apice auriculata aut aptera. *Lindl.*

Specific Character and Synonyms.

ODONTOGLOSSUM *grande;* pseudo-bulbis aggregatis ovato-oblongis compressis ancipitibus diphyllis, foliis lanceolatis acutis scapo paucifloro duplo brevioribus, sepalis lanceolatis lateralibus convexis falcatis petalisque oblongis obtusiusculis latioribus subundulatis, labello subrotundo basi auriculato sepalis plus duplo breviore, tuberculis basi tribus corrugatis aliisque lateralibus dentiformibus minoribus, columnæ tomentosæ marginibus rotundatis convexis incurvis. *Lindl. Bot. Reg. Misc.* 1840. *n.* 94.

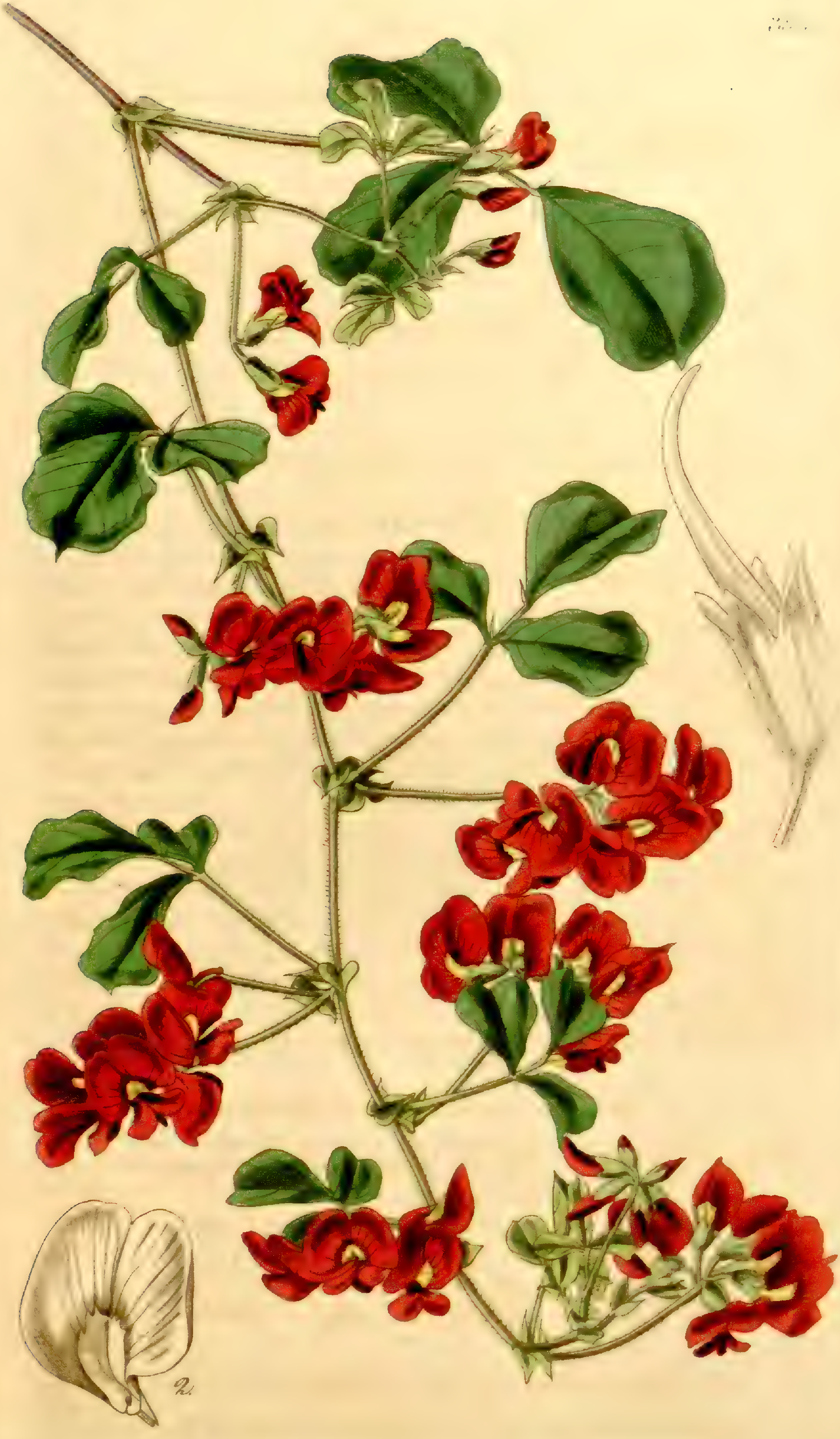
ODONTOGLOSSUM grande. *Lindl. l. c. Batem. Orchid. Guatem. et Mex. Tab.* 24.

This truly magnificent plant blossomed in September, 1841, in the Orchideous House of His Grace the Duke of Bedford, pseudo-bulbs having been sent to His Grace's late father, and it would indeed have gratified that nobleman had he lived to witness its extraordinary blossoms. It is first noticed in the miscellaneous pages of the Botanical Register.

Mr. BATEMAN, who has given a splendid figure of it, says, " this noble plant may well be described by its discoverer (Mr. SKINNER) as among the most magnificent ornaments of the Orchidaceous Flora of Guatemala: and Mr. BATEMAN himself observes that, " in brilliancy of colour if it yield to certain species of LÆLIA and CATTLEYA, it must confessedly be placed at the head of the vast group of South American VANDEÆ, curious and beautiful though they all be." Like the two plants that flowered in Mr. BATEMAN'S collection, our's produced only four blossoms; but that gentleman's had soon after attained to a vigour of growth that left little doubt they will eventually produce the full complement of flowers, which, in their native specimens, is sometimes not less than eight :—and as such, that is, bearing eight flowers, he has represented it.

DESCR. *Pseudo-bulbs* clustered, broadly oval, compressed, nearly smooth, with two large, sheathing, brown, membranous scales at the base, and terminated by two broadly lanceolate, waved, striated *leaves*, sprinkled on the underside with numerous minute, dark-brown dots. From within one of the scales at the base of the pseudo-bulb arises the *scape*, about a foot high, bracteated at intervals, and bearing, in the present instance, four large and very handsome *flowers*, each with a lanceolate, membranous *bractea* at the base of the germen. *Perianth* spreading. *Sepals* three inches long, lanceolate, yellow banded with rich ferruginous spots. *Petals* about equal in length with the sepals, but broader, and very obtuse, ferruginous, suddenly becoming yellow below, and to, the apex. *Lip* much shorter than the sepals and petals, broadly obovate, almost rounded, slightly emarginate at the apex, yellow, banded and spotted with rust colour, at the base having a large, lobed tubercle, semicylindrical, yellow, downy, with two blunt, projecting wings, one on each side the stigma. *Anther* hemispherical, yellow. *Pollen-masses* obovate, with a short stalk and an oblong gland at its base.

Fig. 1. Column and Base of the Lip. 2. Pollen-masses. 3. Anther-case :—*magnified.*



W. Fitch Del^t

Pub by S. Curtis Glazenwood Essex July 1.1842.

S.W. sc

(3956)

ZÍCHYA GLABRÁTA. SMOOTH-LEAVED ZICHYA.

****

Class and Order.

DIADELPHIA DECANDRIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Calyx campanulatus, bilabiatus, labio superiore bidentato inferiore tripartito. *Corollæ vexillum* unguiculatum, late orbiculatum, emarginatum, reflexum, basi biappendiculatum, alis longius. *Alæ* oblongæ, carinæ ultra medium adhærentes. *Carina* incurva, obtusa, alis brevior v. subæquilonga. *Stamina* distincte diadelpha, *filamenta* vexillari basi recto inarticulato. *Antheræ* uniformes. *Vagina* disci nulla. *Ovarium* pluri-ovulatum. *Stylus* brevis, adscendens, superne in *stigma* subcapitatum, sæpius dilatatum, v. breviter appendiculatum desinens. *Legumen* oblongo-lineare, compressum, coriaceum, sutura seminifera incrassata, intus isthmis cellulosis multiloculare. *Semina* strophiolata. —Frutices *volubiles.* Folia *pinnatim trifoliata,* foliolis *stipellatis.* Pedunculi *axillares, apice umbellatim multiflori.* Bracteæ *et* stipulæ *parvæ, rarius foliaceæ, calyces sæpius pilis fuscis villosi.* Corolla *coccinea. Benth.*

Specific Character and Synonyms.

ZICHYA * *glabrata ;* foliolis tribus cuneatis mucronatis glabris, petiolis caulibusque pilosis, stipulis late ovatis acutis, bracteis deciduis, pedunculis foliorum longitudine subsexfloris. *Lindl.*

ZICHYA glabrata. *Bent. in Legum. Gen. p.* 59.
KENNEDYA glabrata. *Lindl. Bot. Reg. t.* 1838.

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* So named in honor of the " Countess MOLLY ZICHY-FERRARIS, now Princess METTERNICH," by Baron HUGEL.

The old Genus **Kennedya** is, now, by Mr. **Bentham** properly divided into several Genera, and one of these is the **Zichya** of Baron **Hugel**, to which belong besides the Z. *Molly*, **Hugel**, on which the Genus itself was founded; the old **Kennedya** *coccinea*, **Vent.** (Bot. Mag. tab. 2664); K. *inophylla*, **Lindl.**; K. *dilatata*, **All. Cunn.**; Z. *tricolor*, **Lindl.**; and the subject of our present plate. They form a very natural group, and are all natives of New Holland, the present of the West coast. The seeds have been sent from the Swan River Settlement, to the Glasgow Botanic Garden, where the plant produced its lively red blossoms in the early part of summer. It succeeds well in a common greenhouse; but the stems require support.

Descr. *Stems* slender, much branched, procumbent, as it appears, rather than a climber, hairy as well as the petioles. *Leaves* trifoliolate, the *leaflets* obovato-cuneate, retuse, with a mucro, glabrous. *Petioles* an inch, or an inch and a half long, having at the base two rather large, cordate acuminate, foliaceous *stipules;* there are also minute stipules at the base of the leaflets. *Peduncles* hairy, axillary, about as long as the leaf, including the petiole, bearing a somewhat capitate raceme of from four to six or eight bright scarlet *flowers:* the *vexillum* alone having in the centre near the claw, a wedge-shaped, pale yellow green spot with a deep red margin around it. *Calyx* tubular, nearly equally five-toothed. *Ovary* gradually tapering into the subulate style.

Fig. 1. Calyx and Pistil. 2. Vexillum:—*magnified.*

3957
1
2
W. Fitch del.
Pub. by S. Curtis, Glazenwood, Essex, July 1 1842.

LÆLIA ÁLBIDA. WHITE-FLOWERED LÆLIA.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala explanata, lanceolata, æqualia. *Petala* majora, paulo difformia, carnosa, explanata. *Labellum* posticum, 3-partitum, lamellatum, circa columnam convolutum. *Columna* aptera, carnosa, antice canaliculata. *Anthera* — ? *Pollinia* 8, caudiculis quatuor elasticis.—Herbæ *epiphytæ, rhizomate pseudo-bulbifero.* Folia *carnosa.* Scapi *terminales, pauci vel multiflori.* Flores *speciosi, odorati. Lindl.*

Specific Character and Synonyms.

LÆLIA *albida;* pseudo-bulbis ovalibus diphyllis, foliis linearibus acutis spica multiflora quadruplo brevioribus, sepalis oblongo-lanceolatis acutis v. subacuminatis petalibus latioribus acutis, omnibus apicibus reflexis fortiter mucronulatis, labelli alte trilobi tricostati lobis lateralibus erectis rotundatis intermedio duplo majore subrotundo obscure apiculato reflexo. *Lindl.*

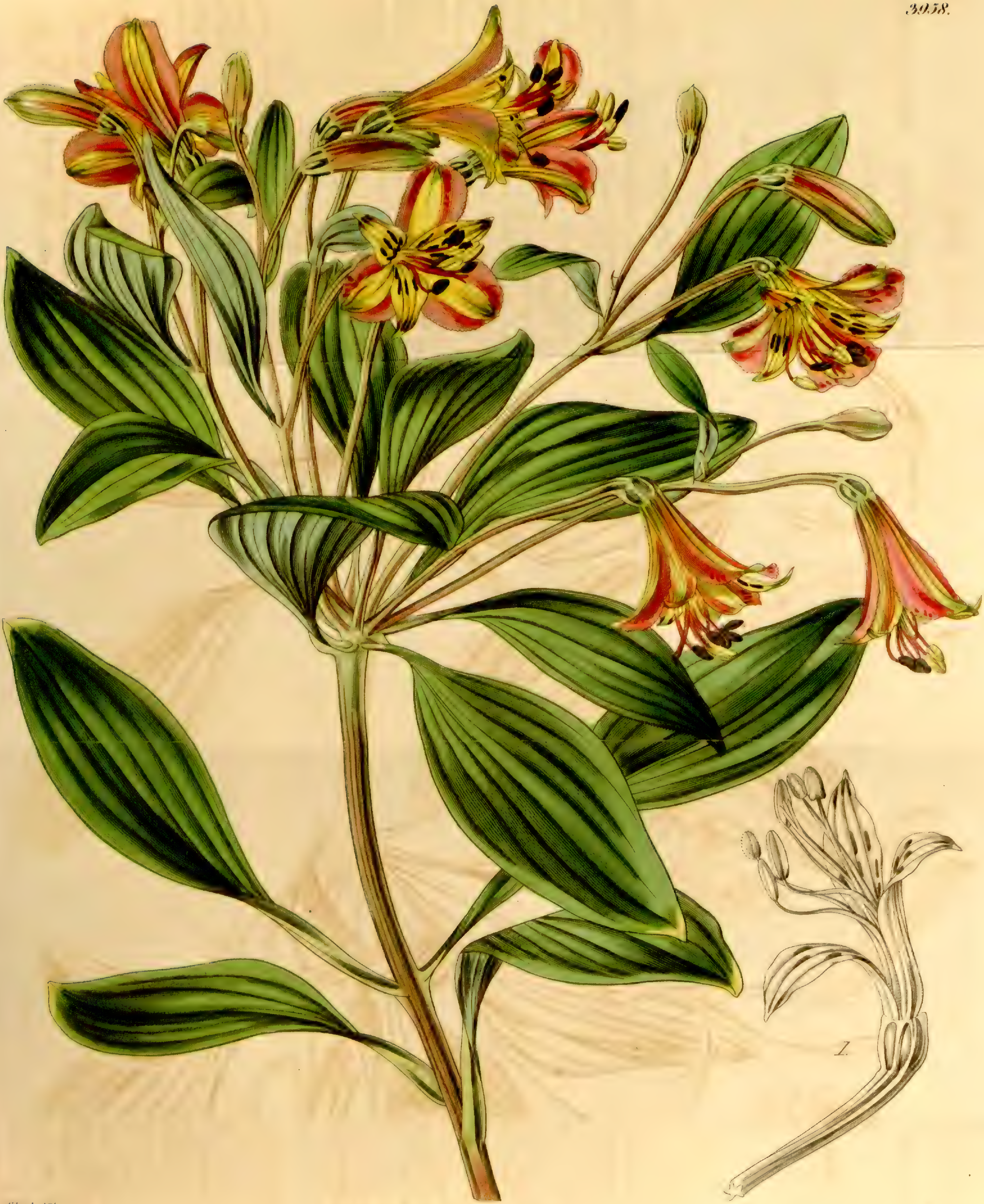
LÆLIA albida. *Batem. in Bot. Reg.* 1839. *Misc. n.* 4. *Lindl. Bot. Reg.* 1839.

Dr. LINDLEY speaks of this as the only LÆLIA yet discovered with white flowers. It is a native of Mexico, and, according to the authority just mentioned, it has been sent to Europe from Oaxaca by Count KARWINSKI; and Mr. HARRIS purchased it of a French Collector who visited this country some years ago. Our plant blossomed in the Orchideous House of the Royal Gardens at Kew, in January 1842. It is a graceful but not a showy species, and has the merit of being delightfully fragrant.

Descr. *Pseudo-bulbs* clustered, several growing together, about the size of pigeons' eggs, and not unlike them in shape, being almost exactly ovate, furrowed and somewhat wrinkled in age. The younger ones are narrower and small, and clothed with large, membranous scales, bearing at their summit two linear-lanceolate, acute, somewhat coriaceous *leaves*. *Peduncle* or *Scape* from the top of the bulb, and twice or thrice as long as the leaves, slender, bearing a raceme of three to five fragrant white *flowers*. *Sepals* lanceolate, spreading. *Petals* similar to them but broader; all very acute, almost mucronate. *Lip* broad-oblong, three-lobed; side *lobes* small, erect, middle one large, roundish, ovate, reflexed. There are three erect lamellæ running nearly the whole length of the lip, yellowish, dotted with brown at the base. *Column* also dotted with brown at its inner base.

Fig. 1. Column and Lip. 2. Pollen-masses:—*magnified*.

3958.



Fitch del.

Pub. by S. Curtis Glazenwood Essex Aug. 1 1842

Swan sc.

(3958)

Alstrœméria nemorósa. Woodland Alstrœmeria.

Class and Order.

Hexandria Monogynia.

(Nat. Ord.—Amaryllideæ.)

Generic Character.

Germen ovulis suberectis sexcostatum (superne 12-angulare 12-costatum); *perianthium* sexpartitum laciniis quater disparibus, petalis duobus erectis imo porrecto; *filamenta* ubi matura recurvata, glandulis in disco deciduis inserta, laciniarum basi vix adnata tardiùs distincto, petalina basi acutè ovali sepalina ultra-semicirculari discum signantia; *antheræ* basi affixa; *stylus* recurvus; *capsula* oblongo-rotunda acutè operculata sexcostata valvis crustaceis septigeris dissilientibus axe ab imâ parte trifariam disrupto, costarum dimidio inseparabiliter pedunculo adhærente; *semina* subrotunda testa tuberculata difficulter separabili, hilo lævi chalazâ circulari, endopleurâ ab albumine corneo inseparabili.—Plantæ *occidentales; caule (quod novi) erecto folioso vel squamato; pedunculis* 1-*plurifloris bracteatis; radice tuberosa palmata. Herbert.*

Specific Name and Character.

Alstrœmeria *nemorosa;* caule subrubescente glabro, foliis glabris subquinqueuncialibus $1\frac{1}{4}$—$1\frac{1}{2}$-latis, involucri foliolis et pedunculorum bracteis folia simulantibus, pedunculis 4—5-uncialibus 2—3-floris, germine glabro, perianthio circ. $1\frac{1}{8}$ unc. aureo marginem versus subminiato, sepalis subsemunciam latis margine superne crenato rotundato (cum acumine brevi) inferne undulato dense ciliato, petalis angustis acutis rubro obscure notatis, imo minore pallidiore, seminibus vix rotundis rugosis vix tuberculatis obscure badiis chalaza prominente hilo breviter apiculato. *W. H.*

Alstrœmeria nemorosa. *Gardn. MS. Herb. Braz. n.* 698.

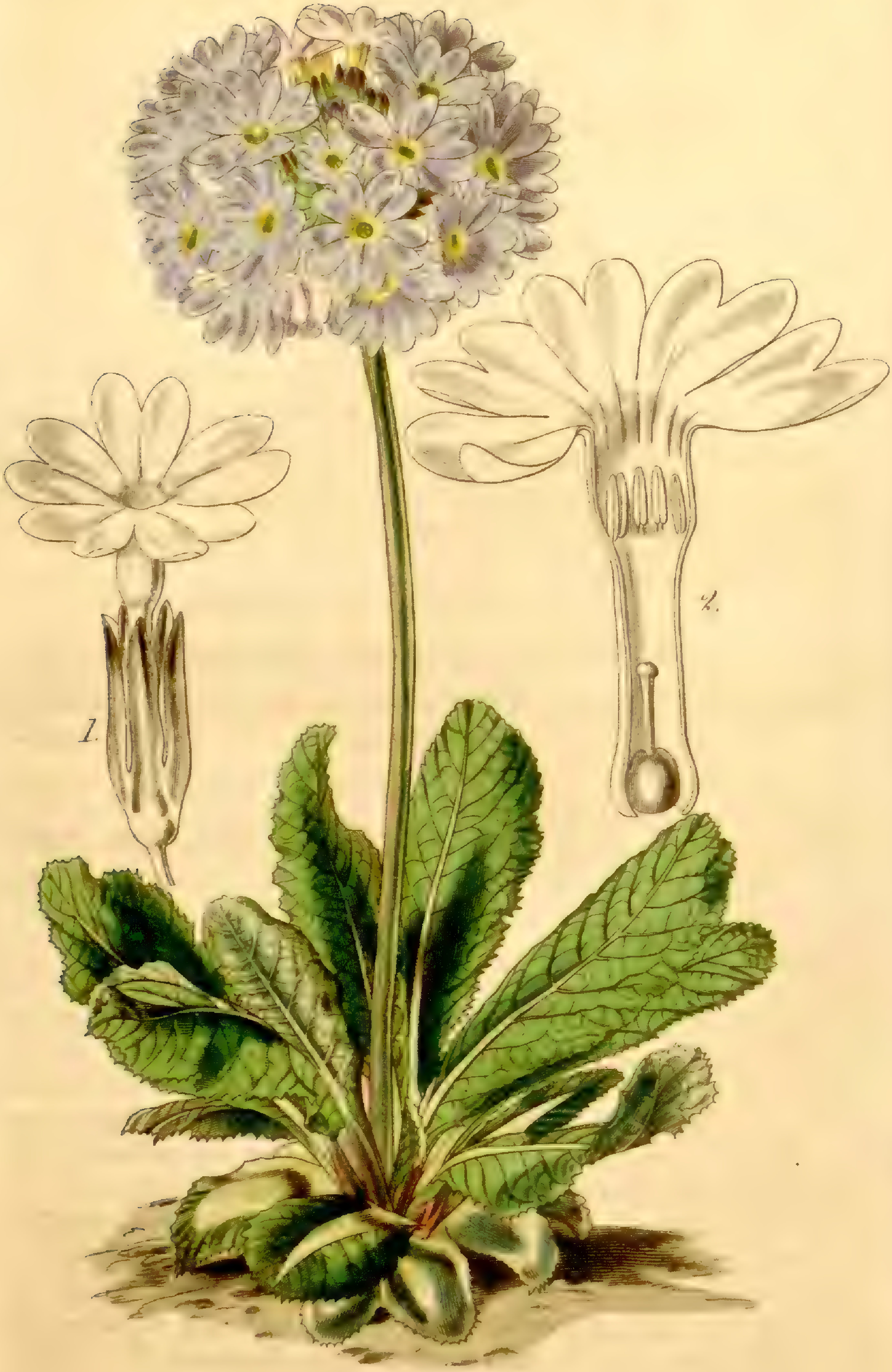
This showy **Alstrœmeria** first flowered in the winter of 1841-2, in the greenhouse of Messrs. **Veitch** and **Son** of Exeter, and a specimen was sent to the Editor. The roots were found in the Organ mountains of Brazil, by Messrs. **Veitch**'s collector, at an elevation of about three thousand feet. One of the plants, having been set in the open border, has endured the winter, as well as A. *aurea*, and was moved in the spring; but in consequence of having been planted out late, the flower-stem produced in the autumn was cut by frost.

It was found to conform exactly with specimens in Sir W. J. **Hooker**'s Herbarium, gathered by Mr. **Gardner** in the Organ mountains of Brazil, and named by him *nemorosa*, having been probably found in wooded and shady places. It is distinguished from the A. *aurea* of the island of Chiloe, and from the Valparaiso yellower variety, by the appearance of the seeds, which are less round and tuberculated; by the greater breadth of the leaves, and shorter flower, a freckle or two on the lowest petal, and by the undulation and more dense ciliation of the base of the segments of the perianth, especially the sepals; but it is certainly very closely related to it, and as Valparaiso is ten degrees of latitude distant from Chiloe, it is evident that A. *aurea* occupies in its varieties a wide range of country. The production of flowers in the winter by A. *nemorosa*, seems to mark a very different habit; but it may have been merely the consequence of Mr. **Veitch**'s treatment. *W. H.*

I am indebted to the Very Rev. the Dean of Manchester for the above specific and valuable remarks on this fine **Alstrœmeria**. To me, however, I must confess that its almost campanulate and nearly regular flowers, the markings of the petals and sepals, the shape and size of the leaves, and the colour, indicate a species quite distinct from A. *aurea*, as they do from every other individual of the Genus with which I am acquainted, and a most important acquisition it most undoubtedly is to our gardens.

Fig. 1. Flower, with the Sepals removed:—slightly *magnified*.

3959.



W. Fitch del.t

Pub. by S. Curtis Glazenwood Essex Aug.t 1 1842

PRÍMULA DENTICULÁTA. PURPLE NEPAL COWSLIP.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—PRIMULACEÆ.)

Generic Character.

Flores subumbellati, involucrati. *Calyx* tubulosus, 5-fidus seu 5-dentatus, persistens. *Corolla* tubulosa, fauce vel nuda vel glandulosa, limbo 5-lobo. *Capsula* apice 10-dentata, polysperma. *Spreng.*

Specific Character and Synonyms.

PRIMULA *denticulata;* foliis oblongo-spathulatis undulatis reticulatim rugosis denticulatis subhirsutis glutinosis margine revolutis, umbella densa multiflora, corollæ limbo plano lobis bifidis.

PRIMULA denticulata. *Sm. Exot. Bot. v.* 2. *p.* 109. *t.* 114. *Flora Ind. ed. Wall. v.* 1. *p.* 17. *Spreng. Syst. Veget. v.* 1. *p.* 574.

This is another of the many interesting plants which Mr. VEITCH has so successfully introduced and reared, and for which he obtained the certificate of merit from the Horticultural Society of London. The seeds were received from the North of India, having been among those of late so extensively and liberally distributed by the Directors of the Honorable the East India Company, through the medium of Dr. ROYLE. It is a native of the mountains bordering on Silhet, and of Nepal, and is particularly abundant in the vicinity of Katmandu, and in Gossain-Than: where no doubt it makes the pastures glow with a purple tint, as does its allied species, P. *farinosa*, in the West of Yorkshire. Dr. WALLICH has remarked that, in POIRET's Supplement

to the "Encycl. Botanique," the station given for it is "Chillongo on the coast of Africa," instead of Chittigong in Upper Nepal," as stated by Sir James Smith, in "Exotic Botany," where it is first described and figured from a drawing made in India. Mr. Veitch has succeeded in raising and flowering it in the greenhouse, and probably when it shall be more increased and planted in the open air, it will succeed there as well as our European *Primulas*. It has flowered in March.

Descr. Its *root* is perennial, consisting of several thick, fleshy *fibres*. While young, "it bears on the top of this root a number of large, oval, concave, acute, closely imbricated, rose-coloured, membranous *bracteas*, which embrace all the tender parts, and even the imperfectly-formed umbel. As the plant advances in age, most of these disappear." (Wallich.) Probably these are what may be observed at the base of our plant; but they are leafy at the margins. The *leaves* themselves are oblong-spathulate, two to four inches long, waved, wrinkled with the tightly reticulated nerves, the margins revolute, and sharply toothed; *petiole* broad, reddish. *Scape* solitary from the centre of the leaves, scarcely a span high, bearing a dense, almost globose *umbel* of purplish-lilac *flowers*. *Pedicels* short. *Calyx* cylindrical, deeply cut into five lanceolate, erect, brownish-green segments. *Corolla* salver-shaped; *tube* and *mouth* yellow: the *limb* flat; the lobes obcordate, deeply cleft. *Anthers* nearly sessile, inserted at the inflation on the top of the tube. *Ovary* globose: *style* short; *stigma* capitate.

Fig. 1. Flower. 2. Corolla laid open; *magnified*.

3960.

W. Fitch del.

Pub. by S. Curtis Glazenwood Essex Aug. 1 1842.

Swan sc.

PHAJUS MACULATUS. SPOTTED-LEAVED PHAJUS.

****

Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala et *petala* subæqualia, patentia, libera. *Labellum* sæpius cucullatum, cum basi columnæ adnatum, calcaratum, integrum v. trilobum, sæpius supra carinatum lamellosum v. cristatum. *Columna* erecta, cum ovario continua, semiteres, marginata, elongata. *Anthera* 8-locularis. *Pollinia* 8, subæqualia.—Herbæ *terrestres (Asiaticæ), caulescentes v. acaules, foliis latis plicatis.* Scapi *radicales.* Flores *speciosi. Lindl.*

Specific Character and Synonyms.

PHAJUS *maculatus;* caulescens, foliis ovato-lanceolatis acuminatis maculatis, sepalis petalisque oblongis obtusis, labelli trilobi lobis apice plicato-crenatis, lateralibus rotundatis intermedio ovato obtuso multo minoribus, calcare recto oblongo obtuso.

PHAJUS maculatus. *Lindl. in Wall. Cat. Herb. Ind. n.* 3748. *Lodd. Bot. Cab. t.* 1803. *Lindl. Gen. et Sp. Orchid. p.* 127.

BLETIA flava. *Wall. in Bibl. Anglo-Ind. Ic.* 1147. *(fidi Lindl.)*

BLETIA Woodfordii. *Hook. Bot. Mag. t.* 2719.

(β) *minor;* foliis totus viridibus.

At tab. 2719 of this work may be seen a representation of this plant, from a drawing communicated by Mr. AITON, but which gives so imperfect an idea of the beauty of this species, that I am sure our readers will not regret the appearance of the present figure. I was further led into

the error of considering it a native of Trinidad, and communicated by Sir Ralph Woodford to the Royal Gardens of Kew. It is, like all its congeners, of Indian origin, and our present drawing was made from one of the many fine plants sent to Kew by Dr. Wallich, and which flowers more or less copiously all winter through. It would be included in Bletia of Brown and other authors; but it differs from the true Bletiæ in having a spur to the lip, and that lip connate with the base of the column, not articulated upon it.

Like some other yellow-flowered plants, (the Primulaceæ for example) the bractea and flowers become of a deep verdigris green in decay. Another circumstance worthy of remark is, if the flowers, or indeed any part of the plant, be chewed in the mouth, no taste whatever is perceived, nor any effect observed, till after the lapse of several minutes; when a very sensible and pungent heat is produced upon the tongue and lips, similar to that experienced after chewing the acrid leaves of some of the Aroideæ.

Descr. *Pseudo-bulbs* ovato-rotundate, as large as one's fist, clustered; and bearing leafy *stems*, clothed with the sheathing bases of the leaves. *Leaves* three to four, broadly-lanceolate, membranaceous, striated and plicated, dark, glossy green, with numerous scattered whitish spots, paler beneath. *Scape* radical, two or more feet high, terete, glabrous, jointed, and bearing at the joints sheathing scales. *Flowers* in a large terminal *raceme*, of a pale but rather bright yellow, destitute of scent. *Bracteas* membranous, as long as the germen, withering and becoming black-green, while the flowers are still in perfection. *Sepals* and *petals* erecto-patent, obtuse, slightly concave; the former tipped with green. *Lip* erect, the apex recurved; the whole is rather longer than the perianth, very broad, but carinated, the sides turned up and involute, so as to include the column, three-lobed, the base running down into an obtuse *spur* nearly half the length of the germen; the lobes orange, and giving the appearance of a crest from the waved and crenated margins. *Column* white, incurved, grooved in front, and hairy. *Anther* hemisphærical. *Pollen-masses* eight.

Fig. 1. Flower, from which the Sepals and Petals are removed. 2. Column and Spur. 3. Inside view of the Anther-case. 4. Pollen-masses:—all more or less *magnified*.

3961.

W. Fitch del. Pub. by S. Curtis Glazenwood Essex Aug.t 1 1842.

HABRÁNTHUS PRATÉNSIS; *var.* quadriflora.
MEADOW HABRANTHUS; four-flowered *var.*

****

Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—AMARYLLIDEÆ.)

Generic Character.

Germen medio constrictum; *tubus* æqualis. *Filamenta* declinata, fasciculata, recurvata, quaterna longitudine. *Stylus* declinatus, recurvatus. *Semina* cumulata, complanata, nigra.—Flos *sub sole patentior. Herb.*

Specific Character and Synonym.

HABRANTHUS *pratensis;* foliis linearibus dorso rotundatis, scapo bipedali vel ultra 2—4-floro, perianthio coccineo infra luteo, tubo brevissimo, limbo biunciali subcampanulato inæquali, dentibus sex epigynis plùs minùs serratis.

Var. 1. *triflora,* foliis glaucis. Placea pratensis. *Poeppig, Fragm. Syn. p.* 5.

Var. 2. *quadriflora,* foliis vix glaucis.

HABRANTHUS pratensis. *Herb. Amer. p.* 159. *W. H.*

This bright-coloured flower seems evidently referable to HABRANTHUS *pratensis.* It differs from the description of Dr. POEPPIG only in having the leaf not decidedly glaucous, the flowers four instead of three, and teeth irregularly serrate which he describes as serrate. It is the only HABRANTHUS we have seen with decidedly dentate processes. Those processes must have led Dr. POEPPIG to call it *Placea,* a Genus then only known by MIERS' name without any published definition, except a notice by Dr. LINDLEY that it was furnished with remarkable processes. PLACEA *ornata* has been since figured and described (Bot. Reg. 1740, p. 50), and the Genus differs from HABRANTHUS, amongst other things, in the form of the anthers, tube less expanded, perianth wide, the divarication of the two lowest segments, and the remarkable crown composed of six keeled, emarginate processes narrowed towards the base. Dr. POEPPIG's plant flowers in the meadows of Antuco, in South Chili, in November. *W. H.*

Sent by Mr. VEITCH, of Exeter; also by BRIDGES to Mr. BEVAN, from Valdivia. Flowered in May 1842, in the open air.

Fig. 1. Flower with the Perianth removed, showing the epigynous Teeth or Scales. 2. 3. 4. Scales removed from the Flower:—*magnified.*

3962.

W. Fitch del. Pub by S. Curtis Glazenwood Essex Aug.t 1 1842

ASPÁSIA EPIDENDROÍDES. EPIDENDRUM-LIKE ASPASIA.

****

Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium patens, æquale. *Sepala* lateralia libera; supremum cum petalis basi connatum. *Labellum* oblongum, concavum, ecalcaratum, obsolete 4-lobum, cum columna semi-connatum. *Columna* labello parallela, semiteres, marginata. *Anthera.—Pollinia* 2, pyriformia, postice sulcata, caudicula plana cuneata, glandula parva.—Herbæ *epiphytæ caulescentes, pseudo-bulbosæ.* Folia *subcoriacea.* Spicæ *radicales, breves.* Flores *mediocri. Lindl.*

Specific Character and Synonyms.

ASPASIA *epidendroides;* pseudo-bulbis oblongis ancipitibus, sepalis lineari-oblongis acutis, petalis obtusis concavis, labelli lobis lateralibus rotundatis integerrimis, intermedio crenulato emarginato. *Lindl.*

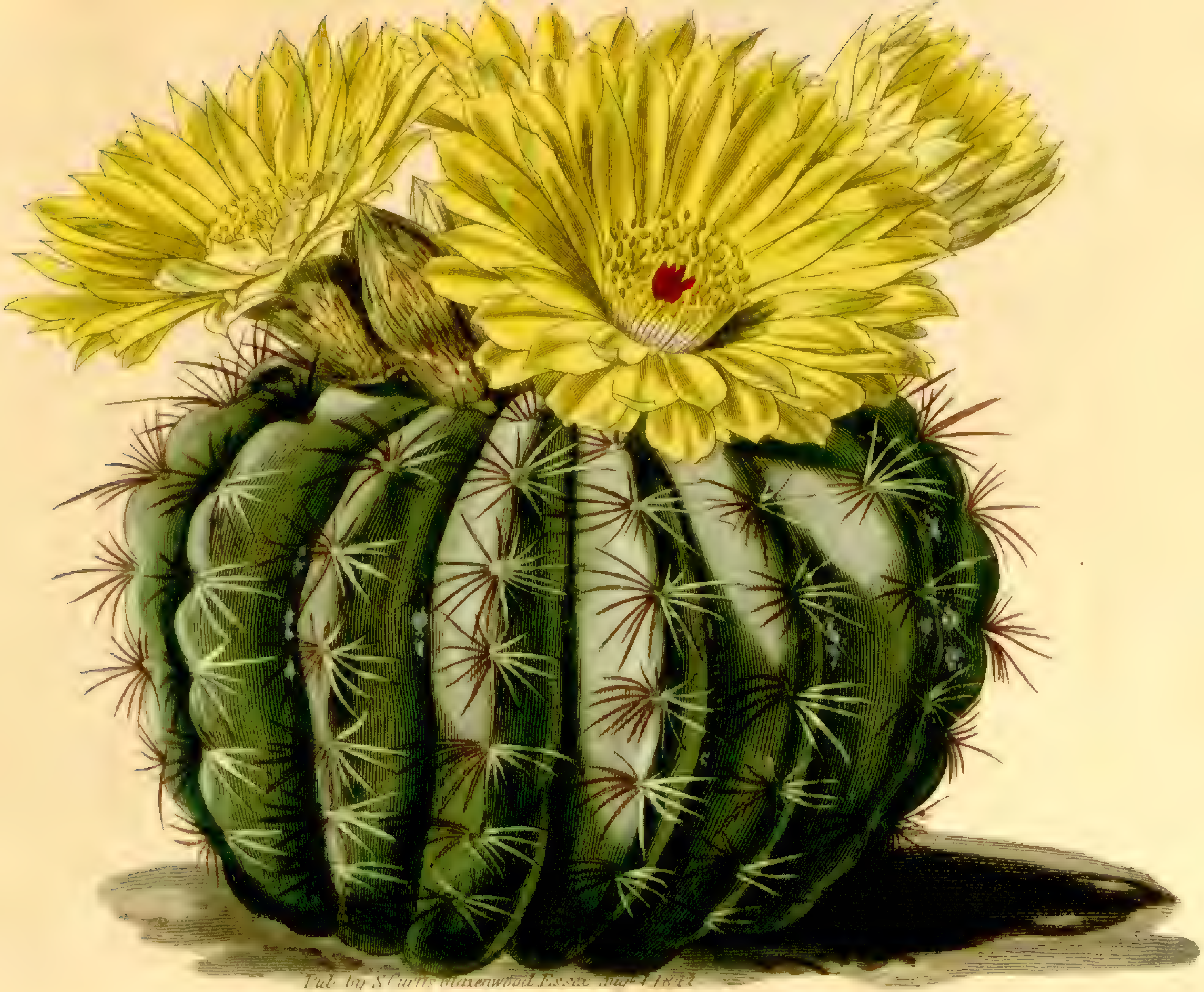
ASPASIA epidendroides. *Lindl. Gen. et Sp. Orchid. p.* 139.

We have already figured one species of ASPASIA (A. *variegata*) at Tab. 3679 of this work. The present is that upon which the Genus is founded, and our specimen was kindly communicated in the early spring of 1842, from the rich collection of ORCHIDEÆ at Penllegar, by its possessor, DILLWYN LLEWELLYN, Esq. About the same time it blossomed in the Orchideous-house of the Royal Botanic Gardens of Kew, and, since, much more luxuriantly, at Mrs. WRAY's of Oakfield, Cheltenham. It is an inhabitant of Panama and Columbia, and has frequently been sent by Mr. SKINNER from Guatemala.

Descr. *Pseudo-bulbs* broadly oblong-oval, compressed, ancipitate, lengthened out at the base, and there sheathed with leafy scales. From the summit of the pseudo-bulbs spring two broadly lanceolate, subcoriaceous *leaves*. *Scape* from the base of the pseudo-bulb, and, in our specimens at least, shorter than the leaves, scaly, bearing a spike of several *flowers*. *Sepals* oblong, greenish, banded with brown, spreading, the two lower ones reflexed; the upper one broader upwards, springing from the back of the column. *Petals* spathulate, greenish-brown. *Lip*, with its lower portion, or claw, united to the column; the lamina spreading, large, broadly oval, three-lobed, crenate, white, the centre dashed with dark purple, and marked with five elevated rays: lateral lobes rounded, smaller than the terminal one which is also rounded. *Column* white, stained with purple. *Anther* terminal, hemispherical. *Pollen-masses* pyriform, curved.

Fig. 1. Flower. 2. Anther-case. 3. Pollen-masses:—*magnified.*

3963.



W. Fitch del.

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Swan Sc.

(3963)

ECHINOCÁCTUS TENUISPÍNUS. SLENDER-SPINED ECHINOCACTUS.

* * *

Class and Order.

ICOSANDRIA MONOGYNIA.

(Nat. Ord.—CACTEÆ.)

Generic Character.

Sepala numerosa imbricata, basi ovario adnata, in tubum brevissimum concreta, exteriora involucriformia, intima petaliformia. *Stamina* numerosa, calyci affixa, inæqualia, intima brevissima, filiformia, antheris oblongis. *Stylus* cylindricus, subfistulosus, apice multifidus. *Bacca* sepalorum reliquiis subsquamata, rarissime lævis. *Cotyledones* parvulæ.—Frutices *simplicissimi carnosi ovati aut globosi, melocactoidei aut mammillariæformes, aphylli, costati aut tuberculati, costis tuberculis confluentibus quasi formatis, dorso aculeorum fasciculos gerentibus.* Cephalium *seu spadix nullus.* Flores *e fasculis aculeorum ad apicem costarum (ita quidem, ut in areolis noviter e vertice erumpentibus florum origines jam conspicui sint) orti, similes floribus* Cerei *sed tubo vix supra receptaculum elongato. Pfeiff.*

Specific Character and Synonyms.

ECHINOCACTUS *tenuispinus ;* depresso-globosus 12—14 costatus subglaucus, costis obtusis sinubus acutis, areolis albis tomentosis immersis, aculeis gracilibus 12—18 quarum 3—4 duplo longioribus, floribus congestis, petalis (flavis) apice serrulatis acutissimis.

ECHINOCACTUS tenuispinus. *Link et Otto in Verhandl. des Gart. Vereins für Pruss. tab.* 19.

ECHINOCACTUS Ottonis. β. tenuispinus. *Pfeiff. Enum. Cact. p.* 47.

Cultivated in the Royal Botanic Gardens of Kew ; where, it must be confessed, that the flowers are very similar to
those

those of E. *Ottonis,* of which Dr. **Pfeiffer** makes it a variety:—but, on the other hand, the form of the plant, a much depressed globe, is quite different from that of E. *Ottonis,* as may be seen by our tab. 3117, where that species is represented. The spines, too, are here much longer, and the native country of the two is very different;—E. *Ottonis* being an inhabitant of Mexico, while E. *tenuispinus* is stated by **Pfeiffer** to come from South Brazil.

It flowers in July, and makes a pretty appearance with the copious bright lemon-coloured flowers, large in proportion to the size of the plant, and the red stigmas in the centre.

I N D E X,

In which the Latin Names of the Plants contained in the *Fifteenth* Volume of the New Series (or *Sixty-eighth* of the Work) are alphabetically arranged.

Pl.
3939 Acacia diptera; β. erioptera.
3933 ——— platyptera.
3958 Alstrœmeria nemorosa.
3944 ——— psittacina; *var.* Erembouldti (hybrid).
3919 Aquilegia Skinneri.
3904 Arctostaphylos nitida.
3927 ——— pungens.
3962 Aspasia epidendroides.
3949 Berberis nervosa.
3888 Bignonia speciosa.
3915 Boronia crenulata.
3895 Bossiæa tenuicaulis.
3882 Callistachys linearis.
3929 Catasetum abruptum.
3942 ——— globiflorum.
3937 ——— Wailesii.
3910 Cattleya crispa.
3922 Cereus cærulescens.
3903 Chorizema spectabile.
3935 Colocasia odorata.
3880 Cyrtochilum maculatum.
3925 Digitalis lutea, δ. fucata.
3906 Echinocactus corynodes.
3963 ——— tenuispinus.
3898 Epidendrum calocheilum.
3885 ——— Grahami.
3951 ——— Skinneri.
3907 Franciscea latifolia.
3948 Fuchsia integrifolia.
3930 Gastrochilus pulcherrima.
3886 Gesneria bulbosa.
3940 ——— zebrina.
3934 Gloxinia speciosa; *var.* macrophylla, variegata.
3943 ——— speciosa; *var.* Menziesii.
3881 Goldfussia glomerata.
3961 Habranthus pratensis; *var.* quadriflora.
3936 Hibiscus Cameroni.
3894 Hypocalyptus obcordatus.
3905 Kreysigia multiflora.
3941 Lantana Selloviana; β. lanceolata.
3908 Lasiopetalum macrophyllum.
3957 Lælia albida.

Pl.
3946 Luculia gratissima.
3893 Marianthus cæruleo-punctatus.
3945 Maxillaria cucullata.
3924 Mimulus roseus; (hybridus) *var.* Maclainianus.
3900 Mormodes pardina.
3923 Myanthus deltoideus.
3916 Nelumbium speciosum.
3917 Ibid.
3955 Odontoglossum grande.
3890 Oncidium monoceras.
3912 ——— ornithorhynchum.
3926 ——— pubes; *var.* flavescens.
3914 Opuntia decumbens.
3911 ——— monacantha.
3931 Oreodaphne bullata.
3921 Otochilus fusca.
3896 Oxalis lasiandra.
3932 ——— lasiopetala.
3938 ——— Martiana.
3884 Pentstemon campanulatus.
3889 Pernettia angustifolia.
3960 Phajus maculatus.
3928 Pharbitis Learii.
3891 Physianthus auricomus.
3950 Pimelea spectabilis.
3952 Plumieria acuminata.
3897 Pleurothallis picta.
3920 Podotheca gnaphalioides.
3909 Prepusa Hookeriana.
3959 Primula denticulata.
3947 Rhododendron anthopogon.
3953 Rondeletia odorata.
3899 Salvia confertiflora; *var.* β.
3892 Sida (Abutilon) Bedfordiana.
3954 Solanum Balbisii; *var.* bipinnata.
3902 Strobilanthes sessilis.
3918 Stuartia pentagyna.
3883 Stylidium ciliatum.
3913 ——— recurvum.
3901 Tithonia ovata.
3887 Tulipa tricolor.
3956 Zichya glabrata.

I N D E X,

In which the English Names of the Plants contained in the *Fifteenth* Volume of the New Series (or *Sixty-eighth* of the Work) are alphabetically arranged.

Pl.
3933 Acacia broad-winged.
3939 ——— two-winged, downy *var.*
3944 Alstrœmeria, Mr. Erembouldt's hybrid. *var.*
3958 ——— woodland.
3927 Arctostaphylos, sharp-pointed; or Bear-berry.
3904 ——— shining; or Bear-berry.
3962 Aspasia, Epidendrum-like.
3916 Bean of India, sacred; deep rose-coloured *var.*
3917 Ibid.
3949 Barberry, strong-nerved.
3888 Bignonia, showy-flowered.
3915 Boronia, crenulated.
3895 Bossiæa, slender-stemmed.
3882 Callistachys, red-flowered.
3929 Catasetum, blunt-lipped.
3942 ——— globe-flowered.
3937 ——— Mr. Wailes'.
3910 Cattleya, crisp-flowered.
3922 Cereus, blue-stemmed.
3903 Chorizema, showy.
3919 Columbine, Mr. Skinner's.
3959 Cowslip, purple Nepal.
3880 Cyrtochilum, spotted.
3906 Echinocactus, many-flowered.
3963 ——— slender-spined.
3898 Epidendrum, beautiful-lipped.
3885 ——— Dr. Graham's.
3951 ——— Mr. Skinner's.
3923 Fly-wort, triangular-lipped.
3925 Fox-glove, small yellow; purplish-flowered *var.*
3907 Franciscea, broad-leaved.
3948 Fuchsia, entire-leaved.
3930 Gastrochilus, handsome-flowered.
3928 Gaybine, Mr. Lear's.
3886 Gesneria, bulbous-rooted.
3940 ——— mottled-leaved.
3934 Gloxinia, rough; large variegated-leaved *var.*
3943 ——— rough-leaved; Mr. Menzies' *var.*
3881 Goldfussia, clustered.
3961 Habranthus, meadow; four-flowered *var.*
3936 Hibiscus, Mr. Cameron's.
3894 Hypocalyptus, obcordate.

Pl.
3935 Kale, Indian, fragrant.
3905 Kreysigia, many-flowered.
3941 Lantana, Mr. Sellows'; long-leaved *var.*
3957 Lælia, white-flowered.
3908 Lasiopetalum, large-leaved.
3946 Luculia, fragrant.
3893 Marianthus, blue-spotted.
3945 Maxillaria, hooded.
3924 Monkey-flower; Mr. Maclain's hybrid *var.* of the Rose-coloured.
3900 Mormodes, Leopard-spotted.
3931 Mountain-Laurel, blistered.
3954 Nightshade, Balbis', bipinnate-leaved *var.*
3955 Odontoglossum, great.
3912 Oncidium, bird's beak.
3926 ——— downy-columned; yellow-flowered *var.*
3890 ——— one-horned.
3914 Opuntia, decumbent; or Prickly Fig.
3911 ——— one-spined; or Prickly Fig.
3921 Otochilus, brownish-flowered.
3884 Pentstemon, bell-flowered.
3889 Pernettia, narrow-leaved.
3960 Phajus, spotted-leaved.
3891 Physianthus, golden-haired.
3950 Pimelea, showy.
3897 Pleurothallis, painted.
3952 Plumieria, sharp-leaved.
3920 Podotheca, cudweed.
3909 Prepusa, scarlet and white-flowered.
3947 Rhododendron, bearded.
3953 Rondeletia, sweet-scented.
3899 Sage, thick-flowered.
3892 Sida, Duke of Bedford's.
3902 Strobilanthes, sessile-flowered.
3918 Stuartia, five-styled.
3883 Stylidium, ciliated-leaved.
3913 ——— recurved.
3901 Tithonia, ovate-leaved.
3887 Tulip, three-coloured.
3896 Wood-Sorrel, downy-stamened.
3938 ——— Dr. Martius'.
3932 ——— hairy-petaled.
3956 Zichya, smooth-leaved.